APRIL 1946

FIREMEN

FIFTIETH ANNIVERSARY YEAR • NATIONAL FIRE PROTECTION ASSOCIATION

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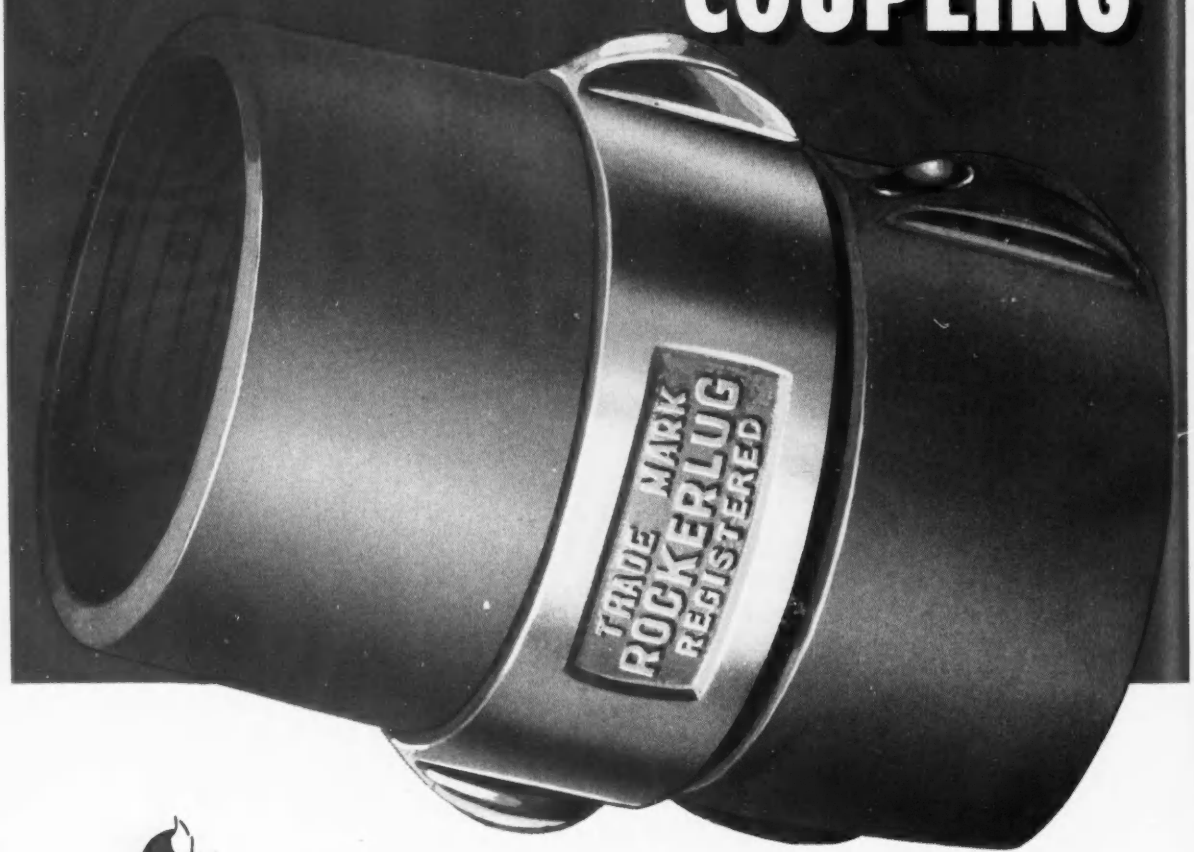

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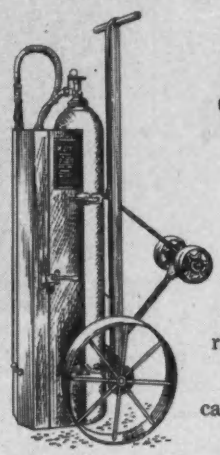

GETS TO FIRES *FAST*

Kidde Wheeled Units are easy to maneuver—pack a terrific fire-fighting punch! 50, 75 and 100-pound carbon dioxide capacities.

Mail and Phone Orders Filled

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THE EXTINGUISHER A NOVICE CAN USE

No special training needed to operate the Model 15 Portable. Just aim at the fire and pull the trigger! Same design available in 10 and 20-pound capacities.

Mail and Phone Orders Filled

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Slam the door on Flames!

Process rooms and other hazardous areas can be automatically isolated, if desired, as part of the operation of Kidde built-in systems. Release of the carbon dioxide actuates trips which allow fire doors and windows to close. Time delay mechanisms allow workers plenty of time to leave before doors close.

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Disorders Break Out

General output at factories and mines decreased 4 per cent in October, while in the first half of November

Bill May Force

stationed in a little town in France for several months, wooed a French girl by telling her about

THIS ADVERTISEMENT IS ONE OF A SERIES APPEARING CURRENTLY IN INDUSTRIAL PUBLICATIONS

Fan mail from Rochester, Michigan!

Listen to what Engineer Joseph Metro of the Rochester, Michigan, Fire Department says about their new Mack apparatus . . . "... We are proud of our Mack Trucks and the performance shown by them. In our opinion they are tops. They have plenty of speed and durability and are easily handled."

This is an old and always gratifying story to the Mack people. They've been building the best for 35 years. The finest fire departments in the country use Macks. For performance and economy you can't beat 'em.

MACK MANUFACTURING CORPORATION, FIRE ENGINE DEPARTMENT, EMPIRE STATE BUILDING, NEW YORK 1, N. Y.

Performance Counts!

Mack
FIRE APPARATUS

If your community needs additional fire-fighting equipment or replacements, think of Mack. Remember, Mack Fire Apparatus is backed by the greatest engineering resources in the industry.

Firemen

Volume 13 Number 4

WARREN Y. KIMBALL, EDITOR
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Published monthly for the fire service members of the

NATIONAL FIRE PROTECTION ASSOCIATION

60 BATTERYMARCH ST., BOSTON 10, MASS.
A VOLUNTARY NON-PROFIT ORGANIZATION

PERCY BUGBEE, GENERAL MANAGER
ROBERT S. MOULTON, TECHNICAL SECRETARY
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THE story of April's cover photo will be found on page 21 with sequence pictures. The sub-standard cement block chimney construction presents a hazard which would draw the attention of any experienced fire inspector.

THE nation's fire loss for the month of February stood at $51,759,000, according to figures released by the National Board of Fire Underwriters. This represents an increase of 25 per cent over January's loss.

Losses for the twelve months ending with February, 1946, were $470,574,000, as compared with $435,008,000 for the same period in 1945.

Canadian fire losses for February reached $5,070,050, an increase of nearly $300,000 over February, 1945. These figures were tabulated by the *Monetary Times*.

JUST as during the years immediately following World War I the two-platoon system for professional fire fighters replaced the continuous duty arrangement, so in the next few years, paid firemen may expect to have their hours of work more nearly approach those followed by other workers.

Before World War II a number of cities, including New York, had already cut the hours worked from the two-platoon, 84-hour week, to the 48-hour week, almost universally worked by policemen throughout the United States. Where equality between the police and fire services has not been reached, it has been common practice to reduce the hours worked by firemen to 60, 64, 70 or 72 hours a week by granting added time off to men working the two-platoon system.

Officials in charge of paid fire departments are interested in knowing how the hours worked by their fire fighters may be reduced and still maintain good, round-the-clock fire protection. The answer is found chiefly in the evolution that is changing both the paid and volunteer fire service. Once a force that primarily sat and waited for fires to break out in the night, the modern department is a fire protection service that sees to it that fire outbreaks are held to a minimum. The fire station is becoming the fire safety center for each neighborhood.

Through more and more inspections and other personal contacts, firemen are teaching the truth that the good citizen does not have fires, just as the good citizen does not commit crimes. If citizens were as careful to keep their names out of the fire record journal as they are to keep their names off the police blotter, there would be many less fires. Less firemen would have to be on duty at a time and they could work the same hours as the police force. Just as Mr. and Mrs. Average Citizen are convinced that "crime does not pay," they must be taught in a kindly way that "fire does not pay."

There will always be a number of big fires that call for the full resources of even the large fire departments. But strangely enough a careful analysis of big fires will show that many fire departments make nowhere near full use of their manpower and equipment at such times. Apparatus is standing idle or is used to only partial capacity. Manpower utilization frequently does not exceed 50 to 60 per cent of the full fire forces of the city.

Firemen need not spend their lives in the fire station waiting for that occasional large fire, as volunteer firemen well know. There are a number of alternatives. One is better use of off-shift members. Another is greater use of mutual aid from neighboring fire departments to back up local forces. Even where cities are not located close together, suburban volunteer departments are always glad to be called upon to lend a hand at the fire or in covering vacated quarters. Thirdly, and most important, a more extensive use of two-way radio will revolutionize the entire fire fighting service. We will have more to say about possible advantages of two-way radio in the fire service in subsequent issues. When each major piece of fire apparatus is equipped with two-way radio, the fire service will enter a new era.

Fiftieth Annual Meeting of the NFPA — Hotel Statler, Boston, June 3-7, 1946

1000 HOMELESS BY
FIRE
Public Relations Pays Dividends
CHILD STRIKES MATCH, STARTS OIL TANK FIRE
Porches Ablaze Cause Injury to Fireman
An Albany fireman suffered injuries yesterday afternoon du a fire which damaged the porches of three three-sto
Rebuilding Plans Be Taken Up Today
Fire Loss Per Capita In America Called Greatest In World
New York, June 2. (AP)—Ame has the highest fire loss per c of any civilized nation in world.
Hundreds Lose Ch
Firemen's Trainin Begins; Travelin School Has De
Five year efforts of the teer firemen of Suffolk C
Blaze Routs 60 Guests At Winthrop
Discharged Tacoma Veteran Is Burned
Fire Losses for One Year Would Build 75,000 Homes
Warns Against Hazardous Construction
Fire Expert Points to Hazards in Renovating Present Homes
Cam
Is D
LOCAL FIRE LOSS BELOW AVERAGE
Loss $23,067, 94c A Perso As Against $2.56 Average
New York, May 11—Pottsvil turned in a better record of fi revent on and control during than did most cities in ing to data just Nearby Village Sa by Shifting of Wind
POOR CONSTRUCTION CAUSES FIRE LOSSES

By

Melvin R. Freeman

NFPA Public Relations Manager

MANY fire departments are "licked before they start" a public relations program. They sometimes suffer from an inferiority complex, engendered by a "poor press' — real or imaginary — and rather reluctantly embark on a public relations program in name only, because "it's the thing to do."

American fire departments should realize the wisdom of Lincoln when he said: "Public sentiment is everything. *With* public sentiment, nothing can fail; *without* it nothing can succeed." Perhaps fire departments could do a satisfactory oral house-to-house publicity job in a very small town, but ordinarily they must rely on their local newspapers and radio stations to create favorable public sentiment for them. Public relations is nothing more or less than a dolled-up word for the art of getting your story over to the public. Every time a piece of your apparatus responds to a fire, your department reputation hinges on a newspaper story usually written by a reporter who knows little or nothing about fire prevention or fire fighting. If, through lack of knowledge, the reporter puts an unfortunate construction on his story your chances for that new ladder truck or fire station grow dimmer.

You probably ask, "Why should I bother with public relations? We're getting along all right now. We're not newspapermen, we're firemen."

Not only will public relations get you the "tools" for a better fire department, but it will make your community "fire conscious" and your fire loss figures will toboggan. Your neighbors will cooperate in taking proper fire precautions when you tell them your troubles. When your fire figures improve — stick out your chest a little in the newspapers. Your neighbors will want to know about the good job you are doing and they will be proud of *their* fire department. When the public is educated about preventing fires (and 90 per cent of them can be prevented) you will have to work less fighting fires and have more time for fire prevention.

More fire departments in this country are struggling along with antiquated equipment and underpaid men while other community departments are receiving the largesse of annual budgets because the fire department fails to tell its story via local press and radio. Good public relations will mean thicker pay envelopes, better working conditions, replace that broken-down ladder truck and get that new station and more manpower. It is a magic wand that is yours for the asking.

But the public can only be informed of your *needs* by beaming a steady flow of fire department news to your local papers and radio stations.

Why should there be any hard feelings between local press and fire department?

Here's part of the answer and a painless solution. After reviewing newspaper fire accounts, many fire chiefs are convinced that the "wayward press" cannot get the facts straight and that newspaper fire reports are of limited value beyond listing the buildings involved and splashing pages with disheveled persons evicted by the flames. Nothing is said of the blaze as the fire fighters saw it and want the public to know about it. The fact that a falling wall or a blazing bale of scrap pyroxylin missed a fireman by a few feet is a matter of life and death to the man involved but

Mr. Freeman, who has returned to his duties as manager of public relations for the NFPA after two years with the U. S. Navy, will gladly assist firemen in planning and improving public relations programs. Mail should be addressed to Melvin R. Freeman, NFPA Public Relations Manager, 60 Batterymarch St., Boston 10, Mass.

when the local paper fails to mention this danger the fire fighter is apt to feel that the press is making light of his job.

Sometimes the newspaper is a little generous in estimating fire losses, but that's partly your fault. You can't expect the reporter to get loss figures and other information right if you make it hard for him and he has to consult a crystal ball and the police blotter for his material. If a newsman has to guess about a loss he's going to make his figures larger rather than smaller — it makes a more spectacular story that way.

And a succession of large losses puts your department in rather a bad light. Sometimes ignorance of fire fighting procedure tends to influence a reporter to infer that the department has bungled a job. Sometimes an abbreviated item about firemen's social events causes ill feeling. If the firemen realize that newspaper technical problems and lack of space cause the "clipping" they would feel better. Yet the rift between fire department and press widens, simply because they don't understand "the other feller's job."

The Answer is Simple

What's the answer? Its amazingly simple. You've got to become more familiar with the problems of the press and the press has got to know more about fire control. You've got to be a better newspaper man and the newspaper man has got to be a better fireman. Which is nothing more than common sense public relations.

Gen. Dwight D. Eisenhower paid tribute to public relations when he told war correspondents: "I believe that the old saw 'public opinion wins wars' is true. Our countries fight best when our people are best informed. You will always be allowed to report everything possible, consistent, of course, with military security. I will never tell you anything false." I think that's about the swellest credo that any fire department could adopt for a public relations effort. You can substitute in the opening sentence of this quotation that "Public opinion wins the war against fire," too. The backbone of your public relations program depends on making and keeping friends. A public relations program doesn't have to be complicated, but it must be built on mutual trust. If the reporter knows that he can rely on you, you are going to place a like faith in him.

Go out of your way to make the reporter's job easy. He has to earn a living, too, you know. Get to know your reporters personally; they can be pretty important friends. See that they know about anything that is interesting or newsworthy at the fire station in advance. But don't play favorites; that's one of the surest ways of wrecking any public relations program. When you have a story or news tip to give out, see that all the papers get the *same* story at the *same* time. Encourage the reporters to be technically correct about writing about fire control. See that newsmen at least know the rudiments of fire department equipment and operations — that they know what an aerial ladder is, or the function of a pumper. By doing this, you are going to get the press "educated" about fire control. And this is time well spent. The newspapermen may even develop into "sparks" or "buffs" and you are going to get your story about needed equipment and manpower over to your community, for these newspaper boys are pretty imaginative fellers. They deal in ideas and may even see needs in your department before you see them, if you get them interested in fire fighting.

The Open Door

Always maintain an open and friendly door to the press. Furnish them with background material for their stories. If there is some fact that you don't want publicized just yet, tell them to keep it under their hat. A good newspaperman will never violate a confidence. See that responsible press representatives have identification cards or badges allowing them to pass police lines at a fire. Realize, too, that newspapers are short-handed, so write up your stories (with pictures if you have them). The papers will appreciate it and you will be insuring proper presentation of your fire department stories to the public.

We also want to explode the mythical sanctity of the newspaper office. As you know it is a *business* office and nothing like it is depicted in the movies. There is nothing more complicated in taking a story down to your local editor than there is in buying a package of shredded wheat at your corner grocery store. You will always be assured of a hearty welcome at your local paper. Your editor is a business man. He knows that it is good business to get along with your fire department for your department is an important news source. He wants to stay on the right side of you just as you want to be friendly with him. And he is a good man to talk with before you make that appeal for that new pumper. He usually is highly regarded by community officials, knows public opinion and will be glad to advise you on the best way to put your appeal across.

Get the Local Angle

Almost anything that happens at the fire house is news, but you want to be sure that you have got something to offer when you do go to see him or call him up. He will not be interested in some cut-and-dried piece out of a magazine that you might like personally. He wants local news. In a later article we will tell you what kinds of news the editor wants especially and how to give it to him.

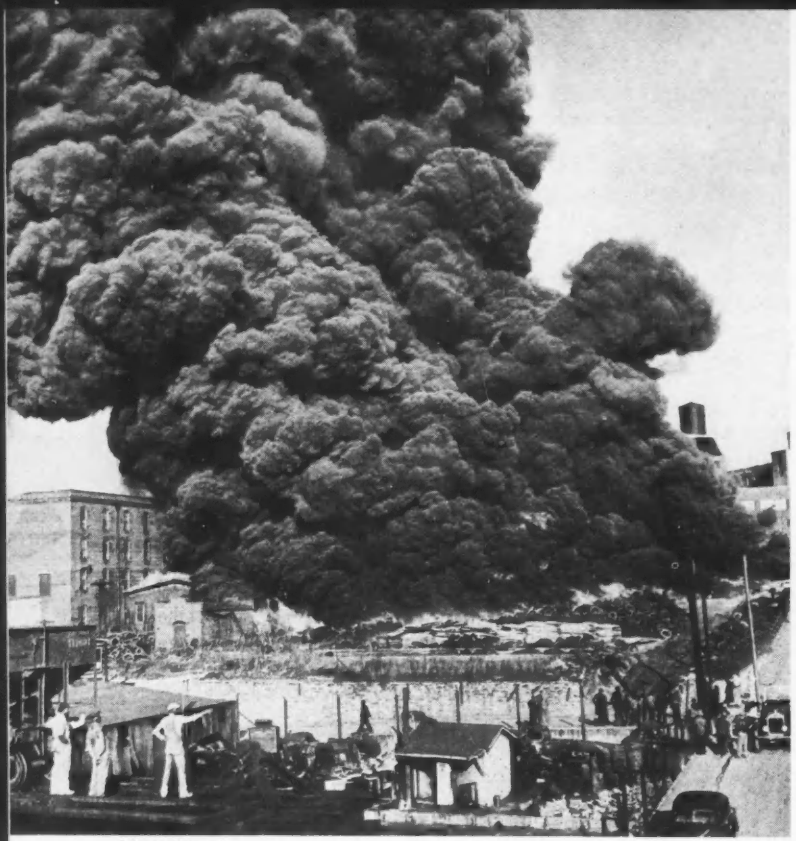
While many fire departments feel that they are not equipped to write up their own stories, there's really not much to it. After a national poll of fire chiefs the N.F.P.A. found that American fire departments were interested in a public relations program and would welcome help in preparing press releases. So we have decided to issue each month releases that can be localized to any fire department. The N.F.P.A. also stands ready to help fire departments with any special promotional ideas or publicity releases. Many fire chiefs have realized that some of their material has not been used because it was not prepared with the newspaper viewpoint. The N.F.P.A. publicity service for the nation's fire officials will suggest news angles and furnish actual newspaper releases.

Just remember this: Your public relations program and all its great benefits will come to naught unless you establish cordial relations with your press. Treat the press right and they'll treat you the same. Understand their problems and "educate" them about yours. Make friendly cooperation the cornerstone of your program. Common sense public relations will pay you big dividends — they're yours for the asking.

This is the first in a series of articles by Mr. Freeman dealing with public relations work in fire departments.

North East

NOT for twenty years has the United States been plagued by as many big fires and high fire losses as have occurred during the past few months. The number of fatal fires reported to the NFPA Department of Fire Record has also been on the upswing. Increased values make for greater losses. Much of the care and fire prevention effort that brought about a reduction in the number of fires during the war appears to have been supplanted by a general apathy and indifference to fire safety in many quarters.



Atlanta Journal

A prize for smoke production might have been earned by the Dixie Rubber Company, of Atlanta, Ga., in the fire of February 25. Almost 1,000,000 scrap tires were said to have gone up in flames in this fire. Five alarms were sounded before sufficient help arrived from the city's fire departments. The huge column of smoke was visible for many miles.

A butane truck that was being repaired at a welding shop was the cause of this fire that occurred in Forth Worth, Texas, on March 1. It destroyed a pickup truck and damaged the shop. The tank suddenly sprang a leak and the butane ignited, hospitalizing three men with severe burns. Firemen are shown directing hose streams at the fire and covering exposures.

The NFPA has standards for liquefied petroleum gas tank trucks designed to prevent such fires.

Acme

$500,000 was the loss estimate chalked up after the fire of February 2 that destroyed the Pickwick Block in Syracuse, Ind.

Firemen from Goshen, Warsaw, North Webster, New Paris, Milford, Leesburg, Ligonier, and Cromwell aided the Syracuse department. Water was pumped from Lake Wawasse when the local supply proved inadequate for the numerous pumpers.

At left is shown the blaze at its height. Below are the ruins of the block.

West South

Acme

Washington's Central Market building, formerly the old Convention Hall, was destroyed on March 1 in the capital's most spectacular fire in twenty years. In addition to market stalls on the ground floor, the upper floor of the structure contained a huge bowling alley concession.

Twenty engine companies, responding to five alarms, succeeded in confining flames to the one building. The roof, of plank on unprotected steel girders, collapsed onto the bowling alleys. Losses were estimated at $500,000.

Approximately 150 children escaped from the Mount Vernon School, just outside Atlanta, Ga., when fire broke out on February 7. An alert principal, smelling smoke, sent them "out to play," just before flames raced through the building.

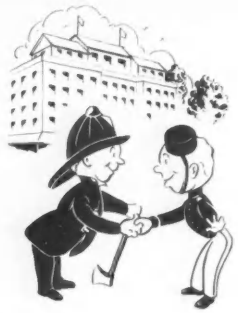
The nearest hydrants were two blocks away and supplied only a trickle of water, according to newspaper accounts. One of the hose streams came far short of reaching the fire, as can be seen in the photo, lower right. The loss was estimated at $22,500.

Press Association, Inc.

Five old multiple tenant, store, office and apartment buildings having numerous unprotected floor and wall openings, succumbed to a night fire starting in baled waste paper in store basement in Muskegon, Mich., February 22. Buildings and contents losses: $886,000.

The fire department, called by automatic alarm, used twenty-three hose streams to stop the fire when it reached solid fire walls, shown protected by heavy streams. Chief E. J. Bandgren reports that the city is speeding work on the new building code and a long range plan for stronger fire protection.

Atlanta Journal



They Fight It on Paper

Hotel Fires Haven't a Chance When They're Licked in Advance

FIRE breaks out in the east wing, top floor, of the large hotel.

It could be the ballroom, the boiler room or any other location.

In any case firemen proceed with swift assurance. They have fought the blaze and won many times in advance, due to the foresight of their fire chief, Capt. Sidney Parker.

The fire chief heads the department in Garden City, Long Island, but it might be any other seacoast town. Or he might be the chief of a department in any of the hundreds of communities near lakes or ponds where a large resort hotel has been erected.

Captain Parker visualized and prepared a three-fold plan whereby the local department would be prepared to battle any type of hotel fire in any location of the hotel, under any given set of conditions.

"It is obvious that the exact type and location of fires cannot be predicted . . .," the chief explained, "but . . . by a wide selection of possibilities we will be prepared for anything which may come."

Part One of the study concerns information of value for fire operations in the building. Captain Parker lists in detail all building specifications, construction materials and fire protective measures of the hotel.

Part Two is comprised of floor plans to acquaint firemen with the hotel layout and the location of various fire-fighting equipment.

And Part Three presents 20 different types of hypothetical fires of serious proportions at various locations within the hotel. These hypothetical fires, which list life hazard, apparatus, fire attack, covering exposures, ventilation, salvage, men needed and overhauling involved, are for consideration by the officer in charge in sizing up the blaze and assigning men and equipment necessary for combat.

Let's assume, for instance, that fire breaks out in the center section, third floor. That's one of the hypothetical cases listed by Captain Parker.

The third floor corridor is charged with smoke and fire is in the center section. Under this set of circumstances, two men with axe, light and masks would be sent to rouse guests, close fire doors on each side of the involved area

and man the center fire tower house hose.

As for apparatus, Captain Parker lists the following:

"Pumper house No. 1 drop skid load at front entrance and go to south hydrant. Aerial truck and boosters adjacent. Pumper house No. 2 at west hydrant charging standpipes at 85 pounds."

As for fire attack, four men with axe, light, spanner, two doughnut rolls and controlling nozzle would be sent up the center fire tower to work from the standpipe at the third floor. And four other men, equipped with exactly the same type of equipment, up the west-center stair to the second floor to connect to the second floor west-center standpipe and carry a line up the stairway and work into the fire at the third floor. A third group of four men with the same equipment would be sent up the east stair to the second floor east standpipe to hook up and come up the east stair to the third floor and work to the fire.

Exposures must be covered, too. In this instance the officer in charge would take the following action:

Send two men with axe and light to man the fourth floor center fire tower house hose.

Send two men with axe and light to man the fourth floor west-center house hose.

Send two men with axe and light to man the fourth floor east house hose.

Send two men up through the building to close all fire doors and keep them closed until relieved.

When lines are charged windows should be opened on the third and fourth floors.

In what area should salvage operations be undertaken? Captain Parker recommends that effects be removed from involved rooms and also from rooms under the involved area. Furniture should be covered also in rooms under the involved area.

In overhauling, floors, walls and ceilings of the involved area should be checked for fire and floors and walls above the fire should be checked for temperature.

Hypothetical fires occur in the basement, on all floors, and in combinations of floors.

Anything may happen — an ammonia leak in the refrigeration equipment or an outbreak of fire involving

the entire west wing. Captain Parker has forseen the possibilities. The battles have been fought and won in advance — on paper.

"The fire plans," according to Captain Parker, "are intended to cover the first considerations by the officer in charge at the fire which is not localized or controllable by first aid fire extinguishers or our red line.

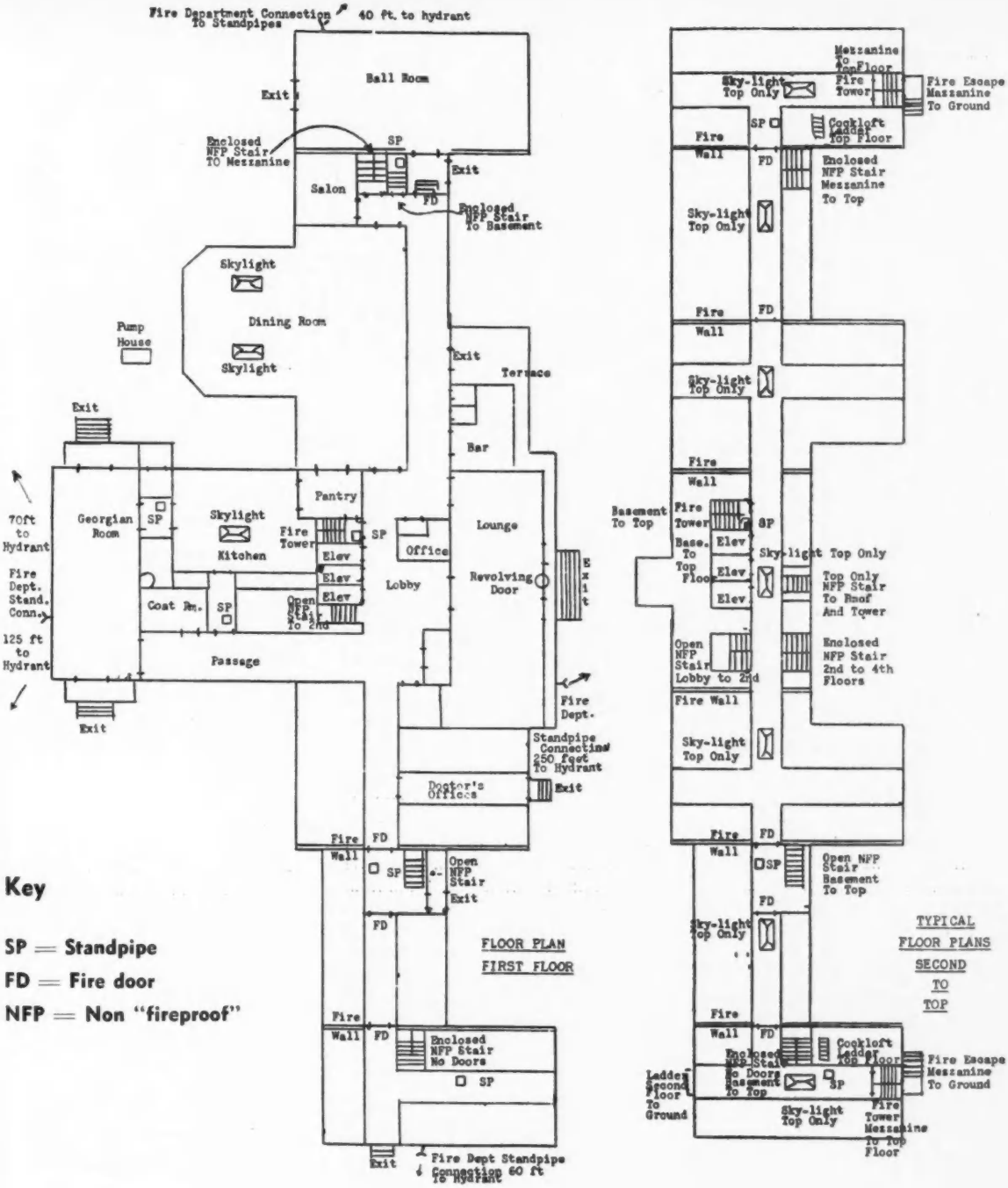
"Subsequent operations will be determined by the progress of the fire. Small localized fires can be controlled by ordinary means and will not require any special consideration by the officer in charge."

The first considerations in the plans were:

1. To arouse guests.
2. To close fire doors to limit spread of smoke and fire.
3. To bring house hose streams to bear on the fire.

The Garden City Fire Chief also makes the following general observations pertaining to fire-fighting in a large hotel:

Continued on page 17



Key

SP = Standpipe

FD = Fire door

NFP = Non "fireproof"

Captain Parker's Hotel Fire Plans

Floor plans show fire protective construction and fire fighting devices to aid firemen. There are six partial firewalls in this hotel and enclosed stairways are located in the center in the main building and on the south end of the east and west wings. Ladders are provided in closets off the east and west wing corridors of the top floor for access to space under roof. Three hydraulic elevators in brick shafts, connecting basement to top floor, have fire retardent doors and have skylights over them.

There are four standpipe risers with outlets having 100 feet of unlined cotton hose in the basement and on all floors. In addition kitchen has hose outlets at its west side center and in northeast corner. The boiler room has a hose outlet at its center column. Automatic sprinklers are installed in kitchen and basement. Watchman's stations are located throughout building with constant night patrol and fire alarm manual boxes are situated throughout building.

Waterfog Stops Bad Rural Fire

Firemen of Wilbraham, Mass. Make Effective Stop with Two 3/4-Inch Fog Nozzles

Front view of home of Harold E. Morgan, Wilbraham, Mass., following fire of February 11. Fire started at second floor bedroom on left side... Only water supply at scene was well in foreground.

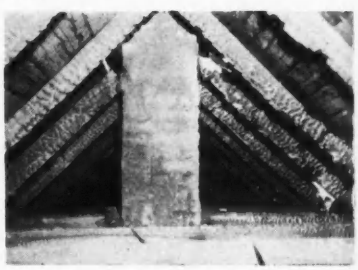
THE value of fog nozzles on booster lines, indicated by large scale fire tests held at Hamden, Conn., last year and reported in *Volunteer Firemen* for December, was confirmed in dramatic fashion by a fire which occurred on the afternoon of February 11, in the home of Harold E. Morgan of Wilbraham, Mass. According to Chief Ralph E. Tupper of Wilbraham, the fire was completely extinguished with two ¾-inch booster lines equipped with waterfog nozzles.

The fire started in a closet in an upper bedroom and had apparently been underway for some time before an alarm was sent. Mr. Morgan's daughter was asleep in the bedroom with her baby when she awakened to find the room on fire. Her first act was to rescue the baby and she then went to a neighbor's house and telephoned to the Wilbraham Fire Department. It was her belief that it took at least ten minutes from the time she discovered the fire until she telephoned the fire department.

Chief Tupper reports that on receipt of the alarm at 3:15 P.M. the first pumper, located 2½ miles from the fire, rolled within three minutes, but approximately 13 minutes was required to reach the scene over winter roads. A second piece of apparatus, located approximately five miles from the fire, also rolled promptly and reached the fire in approximately fifteen minutes.

The first piece was a Maxim 500 g.p.m. pumper with ladders. They laid a ¾-inch booster line equipped with ¾-inch, type SG-40 Rockwood Waterfog nozzle. They had 110 pounds at the pump discharging through 200 feet of hose. The first entry was made at a second floor window facing the garage. Chief Tupper states that from the 200-gallon tank of water on the first piece of apparatus the fire was checked in about eight minutes. They then took water from the well in front of the house. The second piece of apparatus, upon arrival, brought another ¾-inch booster line with a similar waterfog nozzle into play from their 200-gallon tank. The line was advanced through a second floor window at the right of the front entrance.

View in blind attic above bedrooms shows deep charring indicating extent to which fire had gained headway before application of two ¾-inch waterfog nozzles on booster lines.



As the upper section of the house was well involved upon arrival of the apparatus, Chief Tupper telephoned the Palmer, Mass., Fire Department which made a four-mile run with a piece of forest fire equipment having a 300-gallon tank, which was a valuable aid.

After the firemen attached to the first engine had extinguished the fire from a ladder to the second floor, they made an entry through the front door into the dining room below where the fire started. The fire had begun to break through but was extinguished with a quick discharge of the SG-40 fog nozzle.

All surface fire was completely extinguished within twenty minutes, although considerable overhauling was done removing burned contents. Chief Tupper stated that he was certain that if they had been obliged to rely on straight streams they would have lost this five-room home and garage, and would have had nothing left but a cellar hole, as there was no water available other than that described above. Virtually all the fire damage was upstairs.

Continued on page 16

Fire started in upper bedroom and firemen made first entry by ladder through second floor window facing camera.

Photos by Ted Woolner

Radio in the Fire Service

By Editor Warren Y. Kimball

IN a FIREMEN editorial we indicated previously that the advantages of the two-way radio in the fire service are almost limitless. Actually the advantages are so great that no fire department may be considered strictly modern and efficient that does not have two-way radio equipment on every piece of apparatus, in addition to the usual radio equipment in the chief officers' cars. The cost of installation of such equipment is almost negligible as compared with the stupendous values in men and apparatus that otherwise are largely out of communication with headquarters once they roll out of their stations.

Maintenance costs of two-way radio have proven so small per unit as to be much less than the considerable operational savings that inevitably result from radio contact with individual fire companies. When commercial trucking fleets and taxicabs are being dispatched by radio, and with two-way radio a proven necessity for police motorcycles, prowl cars, patrol wagons, and ambulances, the administrator who refuses to provide this equipment for all fire trucks will not be serving the best interests of his community.

An individual fire truck equipped for action represents an investment varying from $5,000 to $20,000 or more, not including the almost inestimable value of the experienced fire fighters that man it. In a paid fire department the crew rolling on a fire truck may represent an annual salary investment of $10,000 to $20,000, and in the volunteer department they represent the community's resources in trained fire fighters. With two-way radio control readily available for all emergency uses at an initial cost of a few hundred dollars per unit, and a few cents a month (yes, cents) thereafter, there is little logic in sending a $5,000 to $40,000 fire company out into the night almost completely out of touch with its headquarters.

If we do, we are still in the horse and buggy days of fire company operation. Even if we have a radio-controlled chief's car, that car speeds ahead to size up the situation with the chief hoping that the fire trucks from the various stations will arrive safely and promptly.

The chief rolls in to the alarm box or fire location. Perhaps he sees that the best approach can be made by diverting several companies around the block to the rear. With radio on each piece this can be done very easily before the companies become enmeshed in the traffic congestion of the fire ground. Otherwise he will have to wait until the officer of each company can report to him on foot to obtain orders.

Perhaps the chief sees that the fire is a small outdoor rubbish fire. The last due companies responding to the alarm are still a mile or more away. with radio they can be turned back to their quarters before they have left their home districts unprotected.

On other occasions, a fire company goes out of service due to accident or mechanical trouble on the way to an alarm. Considerable time is lost in hunting up a telephone at night to notify headquarters. Meanwhile the chief is waiting for that company to arrive. With radio only a few seconds will be required to notify headquarters to dispatch a substitute company.

It has happened quite frequently that apparatus responding to an alarm will discover another fire. In most departments the practice is to drop off a man to call help. The company continues to the location of their initial alarm where the chief is depending on their arrival. Where the apparatus is equipped with radio this situation would be changed. Headquarters would be notified that they had encountered another fire and they would request further orders. In most cases, unless the company was first due at the previous call, they would be detailed to take care of the subsequent fire.

With volunteer fire companies the uses of radio are also limitless. A township frequently has two or more volunteer companies separated by distances of several miles. Often there is no means of communication except by public telephone which may require passage of calls through several separate telephone exchanges. Two-way radio will permit these companies to cooperate with each other almost as effectively as various city fire companies work together at every fire. A city fire department would seldom think of sending one fire company alone, even to a small fire, because much better results are obtained by the coordinated efforts of several companies.

Radio dispatch desk for Station WEY, Boston Fire Department, located in Fire Alarm Headquarters. Two-way contact is maintained with all chief officers' cars, fireboats and rescue squad trucks by high frequency FM operation. Mobile sets respond on a different frequency from headquarters. All fire alarm signals are struck over WEY, simultaneously with their transmission of alarm circuits to the fire stations.
Boston Fire Alarm Superintendent A. L. O'Banion appears at right.

Courtesy Galvin-Motorola

Continued on page 28

MAKING A GOOD JOB OF IT

BY WARREN Y. KIMBALL

Using Heavy Streams

USING the proper calibre of streams for the job at hand is one of the problems of fire fighting strategy. Some fires call for quick work by small mobile lines. Other fires can only be blackened by properly placed and efficiently directed heavy streams, supplemented by hand lines.

An interesting example of this was a recent large fire in the business district of Picher, Okla., involving a hotel, theatre, and several other properties. In all, twelve 2½-inch lines were used in surrounding the fire on four sides. Chief Gerald H. Williams reported the following interesting observation of the effect of various calibre of streams.

"We learned that if we used the heavier lines as stationary lines on the heart of the fire and used the smaller lines as movable equipment, we confined this fire to the area involved."

Another chief recently pointed out the advantages of using heavy streams at a major fire. A general alarm fire in Lynn, Mass., had completely involved the fifty-one year-old Lasters' Hall when the first alarm was given. The second and third floors were occupied by meeting rooms, with liquor store and cafeteria below. Chief Joseph E. Scanlon pointed out the great advantage of using heavy duty streams on a large body of fire where hand lines alone would have had little effect. In this case two wagon guns were used on the fire on the first and second floors, and a ladder pipe was effective in controlling fire on the third floor

In usual fire department parlance, a heavy stream is one developed by combining or siamesing two or more lines of 2½- or 3-inch hose. Occasionally it may consist of a single line secured in a fixed position with a large tip on an open playpipe. The heavy stream has limited mobility and operates at a nozzle pressure higher than that of the usual single hand line.

Heavy streams downed this general alarm blaze in Laster's Hall, Lynn, Mass.

Operating at 80 pounds nozzle pressure, heavy streams from deluge sets, monitor guns, turret nozzles, wagon pipes, ladder pipes, or water towers will provide approximately the following:

Size Tip	*G.P.M.*
1⅜-in.	500
1½-in.	600
1⅝-in.	700
1¾-in.	800 plus
2-in.	1,000 plus*

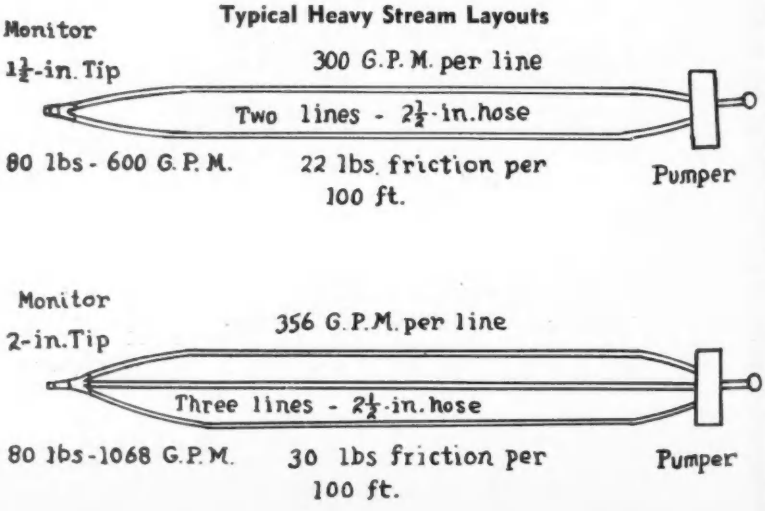
*1,068 g.p.m. at 80 lbs.

If two 2½-inch lines are supplying a 1½-inch nozzle operating at 80 pounds, and each line is doing an equal amount of work, each will be carrying 300 g.p.m. with 22 pounds friction loss per 100 feet of 2½-inch hose, or 8 pounds friction loss per 100 feet of 3-inch hose.

If three lines are supplying a 2-inch nozzle operating at 80 pounds, with each line doing an equal amount of work, each will be carrying 356 g.p.m. with 30 pounds friction loss per 100 feet of 2½-inch hose, or 11 pounds friction loss per 100 feet of 3-inch hose.

It will be noted that with large flows the friction loss is much less when using 3-inch hose. Some departments keep a truck loaded with 3-inch hose for use in developing heavy streams. Other departments use 3-inch hose for the first 100 feet off the pumper to reduce friction loss in each line.

Typical Heavy Stream Layouts



Chester Times

Acme

Chester Times

No Fire Alarm System

Bethel, Pa., Schoolhouse Burns

WHEN a neighbor saw the schoolhouse on fire, she reached for the telephone to give the alarm. It was a ten-party line and two of the parties were busy chatting. The lady on the left (in photo) broke into the conversation, saying that she had a fire to report. "In your stove?" joked the elderly lady on the right. It took several minutes to convince her according to the Chester *Times*.

Somewhere along the line another receiver was off the hook so that the alarm could not be sent.

By that time other neighbors had seen the fire and notified the fire department. Hampered by lack of water, firemen had to truck water from a creek more than two miles away. The schoolhouse was destroyed.

★ ★ ★

Fire on the Ohio River

Reported by G. W. Holfelder, Secretary
Neville Island Volunteer Firemen's Association

A SOMEWHAT unusual fire occurred on Saturday afternoon, January 5, at Neville Island in the middle of the Ohio River near Pittsburgh, Pa. The fire involved a group of twenty-four barges, 150 feet long and 35 feet wide, tied up at landing boats on a permanent setup. They were floating on the river but attached to land by spars which were about twenty to twenty-four inches square. The bank sloped diagonally about fifty or sixty feet, and there was about thirty to forty feet of water between the land and the boats.

Some distance upstream a fuel oil barge was being cleaned by washing with benzol preparatory to a change of cargo or repairs. The mixture was discharged on the surface of the river. As the mixture was carried downstream, it spread over a large area and passed by a landing boat and the steamer "I. Lamont Hughes" moored outside two barges. At the time the flammable liquid was passing this point a welder began to weld at the upsteam end of one of the barges to which the steamer was tied. Flame and smoke were observed to start from the surface of the water. A watchman on the steamer "Hughes" passed an extinguisher to the welder and used one himself in an effort to snuff out the fire on the water.

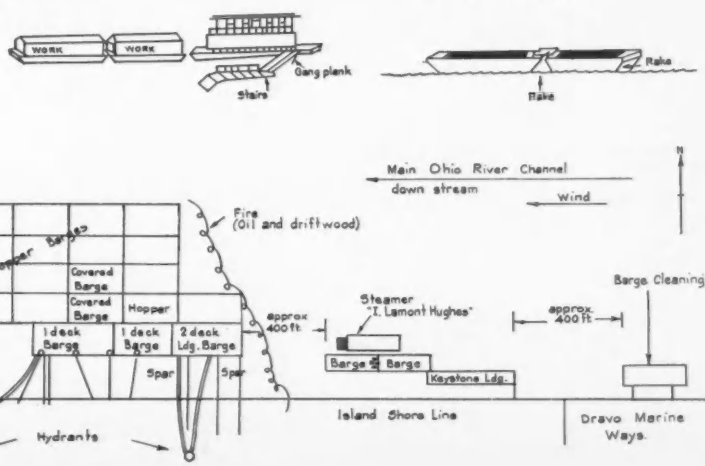
About 5:00 P.M., the watchman on the large landing fleet of barges was aware of a strange odor and saw a small fire upstream on the surface of the water, but spreading rapidly. He telephoned an alarm to the Municipal Building and a siren was sounded, bringing the volunteer fire department of Neville Island. Help was also called from Coraopolis which sent a company of paid call men.

The local volunteers manned two lines from a hydrant at the upstream end of the group of barges and Coraopolis firemen ran another line from a hydrant downstream. These lines were worked from the shore out to the extreme river side of the fleet. The burning surface was too large for hand extinguishers and too high from the water, as the barges were empty, for extinguishers to have any effect on the fire.

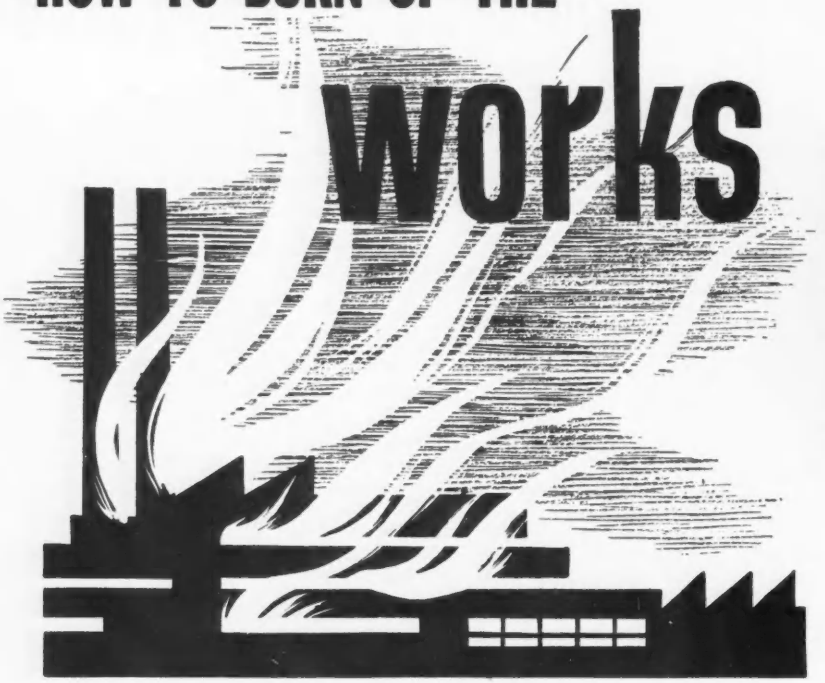
The enormous stretch of hose necessitated the constant moving up and adding of more lengths of hose as the fire was chased out from the group of barges and downstream. The fire burning between the various barges made a very awkward situation, as ropes were slacked off, to permit widening of space between them. The rake ends of barges (shown in sketch) also furnished extensive sheltered areas in which the fire burned.

When firemen arrived the fire appeared to be everywhere in the group

Continued on page 30



HOW TO BURN UP THE works



THROW WATER ON MOLTEN MAGNESIUM

Burning magnesium metal doused with water may cause a violent conflagration. Other fire extinguishing methods may be equally impotent. *But there is an effective way to control a magnesium fire.* Pyrene G1 Powder has been specially developed and prepared to extinguish fires in burning metals such as magnesium, sodium and potassium. Easily applied with either a shovel or machine.

or USE IMPROPER EXTINGUISHER
ON OIL AND GASOLINE FIRES

Pyrene Foam made at the nozzle of Pyrene Playpipe smothers fire in burning liquids. One man does the job with a hip-pack of air foam and just hydrant or salt water. Fast, safe, certain and most economical.

or THROW WATER ON ELECTRICAL FIRES

Use a Pyrene Vaporizing Liquid extinguisher — a one-quart pump type to a one-gallon pressure type — depending upon size of fire. It's safe because it's a non-conductor.

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Control of fire in all its phases has been Pyrene's business for almost 40 years. There are specific Pyrene Fire Extinguishers for different classes of fires. A Pyrene jobber will be glad to help you determine your fire hazards and advise best methods for protection from them.

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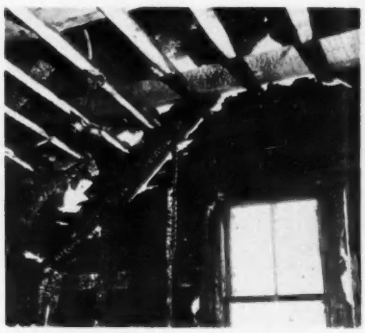
Waterfog Stops Bad Rural Fire

Continued from page 12



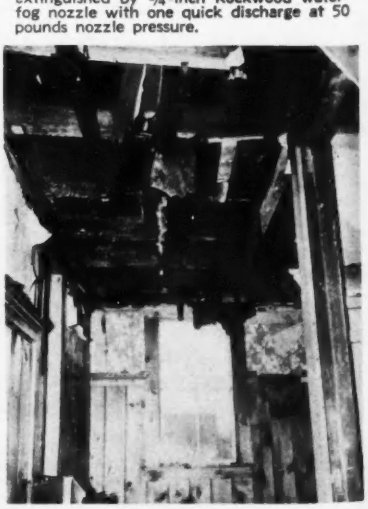
Bedroom where fire started showing headway when firemen arrived. All surface fire was extinguished in twenty minutes with two ¾-inch, type SG-40 Rockwood waterfog nozzles supplied by booster tanks and a well.

The building had a Johns-Manville fire-resistant roof through which the fire did not penetrate at any time, although the fire department did open up the roof to reach fire in the blind attic.

The owner was highly pleased with the work of the fire department. He said that when he first saw the fire he expected that he would have to rebuild the house. The value of building and contents was between $8,000 and $9,000. The loss, including contents, was estimated by the adjuster at $3,180. There was very little water damage on the first floor.

Fire Chief Tupper has been in the Wilbraham Volunteer Fire Department for twenty-three years, ten of which he served as assistant chief. He

Ceiling of first floor dining room where fire had dropped down. This was quickly extinguished by ¾-inch Rockwood waterfog nozzle with one quick discharge at 50 pounds nozzle pressure.



was appointed chief two years ago and has been using waterfog since he took over the position. He was very much impressed with the value of waterfog after listening to his son's experiences with this equipment in the Navy. His son, formerly a Navy fire fighter is now a member of the Wilbraham Volunteer Fire Department.

It is important to note that after taking into account the friction loss through 200 feet of ¾-inch booster hose, a pressure of only 50 p.s.i. was available at the nozzle for producing the high velocity fog discharge used in fighting this fire.

* * *

They Fight It on Paper

Continued from page 10

That most fires are fought through the use of standpipes since the size of the building makes hose lines to pumpers difficult and time-consuming to provide.

That fire ventilation is "critical" and that doors and windows should be opened extensively only under orders and after hose lines are charged.

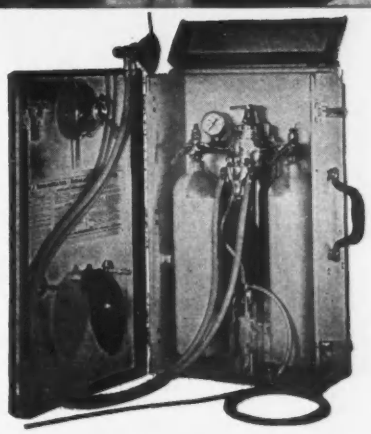
That men are sent into the building with an axe, hand light and spanner wrench. "The axe is important," says the chief, "since access to windows in many cases can only be obtained by opening locked room doors on the long corridors. Spanners should be taken along with the hose in order to make proper connections.

That the fireman will be able to proceed with more confidence if he remembers the location of windows in the cross corridors of the four wings as well as the location of the three fire towers.

That in overhauling it is particularly important that walls, floors and spaces around and above the fire be checked for excessive temperature. The fire chief cautions: "Wall spaces and openings provided for pipes and wiring can easily cause the fire to jump one or more floors and burst out above."

WHEREVER YOU FIND
LIFESAVING AT ITS BEST

The E & J
RESUSCITATOR
INHALATOR
and
ASPIRATOR



E & J Resuscitators are specially designed for the treatment of desperate cases of Asphyxia. These automatic breathing machines are built to include vital life saving features not found in other equipment. A comparison between methods and equipment in the field of artificial respiration reveals the many reasons why E & J Resuscitators have been the choice of a vast majority of the Fire Departments employing mechanical artificial respiration.

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Nothing to clog the Hi-Lift Suction Booster — the inlet is protected by strainer which is integral with the unit. Nothing to wear out or lose efficiency — you can use it indefinitely for heavy duty pumping.

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Its operation and performance are based on sound, basic principles of hydraulics, applied successfully by Darley engineers to a problem which often forced the fire service to stand by helplessly and watch property destroyed by fire because the water supply was beyond the drafting capacity or reach of their pumpers.

Handles dirty water without injury.

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Firemen's Training in Kentucky

By Capt. V. A. Beam, Lousiville, Ky. Secretary, Kentucky Firemen's Association. From the **Kentucky City.**

THE first firemen's training in Kentucky was conducted by the Kentucky Actuarial Bureau (now Inspection Bureau), which carried on the work for several years. Subsequently, the firemen of the state selected an Educational Committee to interest state leaders in establishing a firemen's training program. After considerable work, the firemen's training was set up by the State Department of Education in the Vocational Division, April 1, 1940, in cooperation with the U. S. Office of Education and in accordance with the George-Deen Act providing funds for the training.

A lot of ground has been covered since the beginning of the program, yet there are a number of departments that have not availed themselves of this service. The program has been enlarged to provide a systematic course meeting the basic needs of every fireman coming into the service.

Many remember the old-timers in the fire service who scoffed at the newfangled ideas. The horses and the old coal-fired steamers were good enough for them. They went to their final rest refusing to concede any merit to the motor car, automatic sprinklers, and chemical extinguishing agents. Even today there may be some who will not admit the effectiveness of waterfog, foam, modern ladders, radio communication and other developments in the fire service. A study of the last two decades of progress and particularly the last four years, should dispel the belief that there is nothing new under the sun. The war has left its imprint on the fire service, and the war is going to be felt for many years to come. It would be a pity to see the time, effort, and money spent by the armed forces to develop better fire fighting equipment and techniques, disregarded in the future. It would be a crime if the fire service, including that of the armed forces, were to call it a day, to write finis to the developments and scientific research that have been accomplished in the last few years. Yet that is quite likely to happen unless the fire service organizes for the task.

Recollect that the fire service has never had organized facilities for comprehensive group research, as have the insurance underwriters and the government. What has been accomplished has been the work of individuals in the service, of fire departments, or of the apparatus and equipment manufacturers. There has never been an intelligent, forethoughtful research program within the fire service per se.

Perhaps the time was not ripe for it, but nobody can deny that in view of what the war has taught us, and what may be expected if future wars come, it is time to organize on an intelligent basis for some systematic research in fire prevention, fire protection, fire training and all the kindred fields of endeavor. The job of postwar research cannot be left to the government, or to the underwriters, or to the manufacturers. It calls for the everlasting cooperation of every one of us.

Firemen are no different fundamentally from other men in organized groups. They reflect the spirit of the men at the top. A positive attitude on the part of a leader is reflected in the attitude of the men and officers alike, in their dress, the condition of apparatus, and station, and the types of service they render.

There are 199 fire departments in Kentucky, twenty-four of these are paid or part-paid, while the rest are volunteer departments. Four of the larger departments maintain their own training program while the others depend on the state program.

It is for these departments the training is developed, as well as for all industrial fire brigades.

The last budget set up by the state legislature allotted money to match the federal funds. This is an opportunity for trained service in Kentucky, at no cost to any city or fire department, whether paid, volunteer or industrial plant fire brigade.

Introducing "Bell Happy Bennie," a creation of Charles F. Ferris, Jr., of the Fort Dodge, Iowa, Fire Department. "Bell Happy Bennie" makes all the mistakes and takes all the bumps that Fireman Ferris hopes real life firemen will always successfully avoid. You may expect to see "Bell Happy's" sad and chagrined countenance in FIREMEN magazine from time to time.

Coming Events

April 8-10—**Ind.**, West Lafayette. Purdue University. Second Annual Arson Investigation and Detection School.
April 23-25—**Nebr.**, Grand Island. Nebraska State Fire School.
April 30-May 3—**Ill.**, Springfield. Regional Fire School. Cass Christian, Logan, Menard, Morgan, Sangamon and Shelby Counties.
May 7-10—**Ill.**, Decatur. Regional Fire School. Champaign, DeWitt, Macon, Moultrie, Platt and Vermilion Counties.
May 13-15—**Minn.**, Minneapolis. Northwest Fire School.
May 13-15 **Ore.**, Seaside. Conference and fire school of the Oregon Fire Chiefs' Association.
May 13-18—**Ont.**, Toronto. Provincial Fire School.
May 14-17—**Ill.**, Pekin. Regional Fire School. Fulton, McLean, Tazewell and Woodford Counties.
May 21-24—**Iowa**, Ames. Iowa State Fire College.
May 21-24—**Ill.**, Kankakee. Regional Fire School. Ford, Iroquois and Kankakee Counties.
May 28-31—**Ill.**, Quincy. Regional Fire School. Adams, Brown, Hancock, Pike and Schuyler Counties.

CORRECTION

THE Pyrene Manufacturing Company of Newark, N. J., informs us that we gave them undue credit last month when we reported in FIREMEN that their company was planning a fire safety college for New Jersey firemen. The Pyrene Manufacturing Company is merely cooperating as a member of the Newark Safety Council one of the sponsoring organizations. Other sponsors are the Newark Fire Department, the New Jersey State Firemen's Association, and the Fire Insurance Rating Organization of New Jersey.

Poland's Fire Brigades Today

By Tom Murray

Mr. Murray is Scottish secretary of the British Fire Brigades Union, from whose bulletin, **Firefighter**, December-January, the following is taken.

ALTHOUGH I spent the greater part of November last in Poland, I had only limited opportunities to make contact with the fire brigades, or rather what is left of them. I was particularly fortunate to meet Commander Marian Kominek, Chief of the Warsaw Fire Brigade, and a number of his officers and men.

Before the war there were 800 members in the Warsaw Brigade. Now there are only 350. Before the war they had thirty machines. Now they have only three which they received from the army. Under the German occupation they were compelled to work on continuous duty, but immediately the city was liberated by the Red Army their hours were reduced to the present twelve hours on duty and twenty-four off. In other parts of Poland, duty hours are invariably twenty-four on and twenty-four off.

It is not possible to assess the real value of wages, but I can state that the standard of living for the Warsaw firemen is certainly not high. The condition of the uniforms of officers and men alike is deplorable. Practically every item of equipment, personal and otherwise, was either taken away by the Nazis or lost in the fearful destruction of the city. If anything can be done to send uniforms and the like to Warsaw, the firemen will be deeply grateful. It should also be possible to send some of our surplus National Fire Service fire fighting appliances.

The firemen of Warsaw have a splendid record and paid a tragic price in the struggle for the freedom of their country from Nazi Fascism. No fewer than 100 were killed as members of the resistance movement or murdered in concentration camps. Now much of the work of the brigade is to assist with the recovery of the countless thousands of bodies entombed in the ruins of their city.

Use of 1½ Inch Hose from Booster Tanks

LAST month, under the heading "Effective First Aid Streams for Saving Life," we discussed the advantages of 1½-inch hose supplied from booster tanks on pumpers.

One of the fire departments that has had the longest experience with this method of using 1½-inch lines is the fire department of Savannah, Ga., under Chief Walter S. Blanton, NFPA member. Member Charles W. Ehlers, of Savannah, reports that the city now has two machines which they classify as "booster." One answers all downtown mercantile and high value district calls. The other serves part of the residential and most of the suburban area.

These are otherwise standard 750 g.p.m. pumpers with 450-gallon water tanks. There are two or three lines of 1½-inch hose attached and ready for service. They can operate for at least two minutes before exhausting their supply. The booster in the residential district lays its own line of 2½-inch hose to back up the water tank. The hose wagon of an engine company from the same fire station lays the supply line to the downtown booster company.

A somewhat similar booster practice has been developed for practically every engine company in the department. All engine companies located in residential areas have 150-gallon tanks and one 1½-inch line attached. They lay from hydrant to fire, and the 2½-inch hose can be attached to the supply tank or carried in as circumstances dictate. The 1½-inch lines are carried with nozzle attached, are easily pulled off and readily turned on by the pump engineer.

As practiced there is little difference in operation between the 450-gallon booster tanks and the 150-gallon machines. The latter usually supplies one 1½-inch line in the beginning although others may be readily added. The 450-gallon machines can start with two 1½-inch lines with assurance that the supply will hold out until water from the plug arrives.

St. Johnswood Junior Fire Department, Portland, Ore., took first prize as marching unit in 1944 and have demonstrated their hose and ladder drills, under Capt. Robert Winwood, before the Oregon Fire Chiefs' Association. They report to all alarms and have actively participated in fighting several large fires. They generally serve as runners, fire watchers on buildings or handle hose lines.

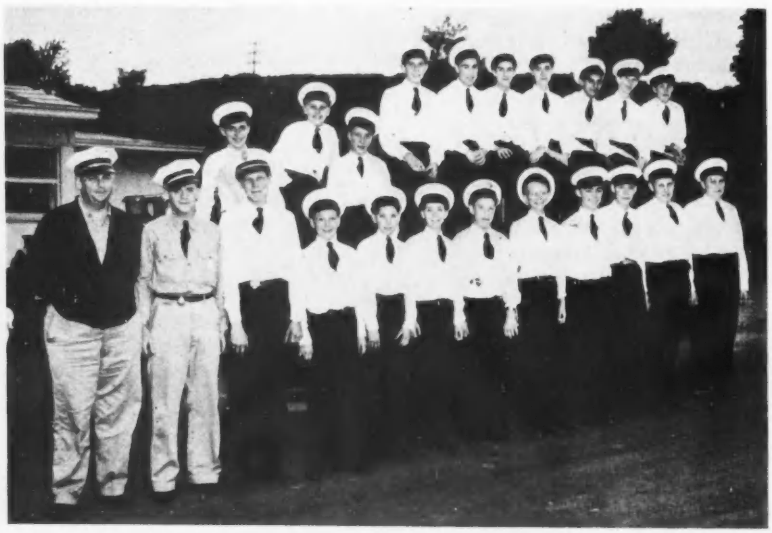

Chart Available, Listing Apparatus in F.D.N.Y.

A NEW chart, listing fire apparatus in active service in engine and ladder companies of the Fire Department of New York City, is for sale at $1, by William Howard Wallace, 21 Perkins Avenue, Oceanside, N. Y. A study of this chart reveals that the "Big Town" has 229 engine companies in service, of which 137 are equipped with 100 g.p.m. pumpers and the balance with 700 g.p.m. pumpers. Sixty of the pumpers have been in service more than fifteen years. The location of each company and the make of apparatus in each are listed.

Of the 127 ladder trucks in service, only 38 have 85-foot aerial ladders, 73 have 75-foot aerials, 11 have old 65-foot aerials, and 5 are service-type trucks. The dates on which trucks and tractors were installed are indicated.

Going—Going—Gone

WITH her baby in her arms, a mother jumped from the porch roof of her burning home, after dropping her four-year-old daughter to safety. The father and five other children were not at home when the fire occurred that destroyed their home in York County, Pa., on February 19.

The cause of the fire has not been determined. It started in a concrete block out-kitchen about 2:30 P.M. The New Cumberland firemen were called at 2:50 but were unable to save the house due to lack of water.

Consider these questions for a moment: If you have vaults for filing tracings, blue prints or other valuable records; storage spaces where highly flammable liquids and chemicals are kept; bake ovens, dip tanks, spray booths, and electrical equipment—and a serious fire occurs, how long would you be out of production? How much damage would irreplaceable records and other materials suffer from improper extinguishing agents or methods? If the answers suggest a survey of your present fire protection then consider these facts:

C-O-TWO smoke detecting combined with fire extinguishing is new—modern. The slightest trace of smoke is detected instantly. This new C-O-TWO protection is not dependent upon heat. It operates instantly on the detection of smoke. C-O-TWO pressure release will automatically close doors and windows—isolating a fire. Dry sub-zero carbon dioxide gas from a C-O-TWO built-in system will extinguish a fire in seconds without damage to materials or machinery.

Portable extinguishers including the famous C-O-TWO Squeez-Grip valve—wheeled units or hose reel types, afford additional protection against incipient fires. All employ carbon dioxide, the fastest non-damaging fire extinguishing agent. C-O-TWO engineers will help you plan modern fire protection. Write for information.

C-O-TWO Detects Smoke . . . Kills Fire
Saves Lives . . . It's Fast . . . It's Modern

C-O-TWO fire equipment company

Newark 1, New Jersey

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

Sales and Service in the Principal Cities of the U. S. and Canada

British Plans for Postwar Fire Service

IN Britain's postwar fire service there will be fewer fire brigades but larger ones. When the blitz hit England, the 1,400 local fire departments in England and Wales were consolidated into a single National Fire Service scheme, into which were also incorporated (under regional commands) the fire brigades of Scotland and North Ireland. These will be unscrambled into 160 brigades in charge of county councils and county boroughs.

With the end of the war in sight, the question of what should be done with the National Fire Service came up for spirited discussion. The war had shown that there were very definite advantages of fire departments larger than the ordinary small brigade which could be operated by little towns and cities.

Home Secretary Herbert Morrison had promised that the Fire Service would return to local control. They are going to give the National Fire service back to the local authorities but it is apparently going to be stipulated that the local authority be big enough to support a good sized fire department and maintain a service which will attract and keep high grade men.

Mr. Chuter Ede, the present Home Secretary, is planning to ask Parliament for enabling legislation to give the fire service back to county councils and county boroughs. The plan is intended to give protection to every part of the United Kingdom, including rural areas, which was something that the 1,400 prewar brigades generally did not do.

The Home Office in peacetime will have a relation to the local fire departments similar in some ways to that of State and Provincial Fire Marshals in the U. S. and Canada. However, it will do some additional things, particularly in operating an inspectorate to standardize such things as uniforms, ranking of officers, working hours, pay, training, and such matters.

NFPA Code for the Prevention of Plastics Dust Explosions

THE dusts of most of the plastics are explosive when in suspension in air. Special precautions are necessary for the avoidance of dust explosions wherever dust is present, either in connection with the manufacture or handling of powders produced from moulding or from grinding or buffing operations. The hazard of plastics dusts has been studied by the NFPA Committee on Dust Explosion Hazards, Dr. Hylton R. Brown, U. S. Bureau of Mines, Chairman. On their recommendation a Code for the Prevention of Dust Explosions in the Plastics Industry has been adopted by the NFPA and recently published. This code, prepared by a national committee with the cooperation of the industry, is available from the NFPA.

Giving detailed provisions for all common types of plastics dusts with data indicating the relative susceptibility to dust explosions on the part of dusts from the various plastics, this pamphlet has been approved by the American Standards Association as an American Standard.

Recommended precautions against dust explosions in plastic, dusts include good housekeeping to prevent any unnecessary accumulations of dust, elimination of possible sources of ignition, provision for explosion venting of both buildings and equipment, special types of dust collecting systems, and other measures which have been found effective in occupancies subject to the dust explosion hazard.

"Fire Prevention Education"

THE University of the State of New York at Albany has issued Bulletin No. 1311 on the subject of *Fire Prevention Education*. This sixty-four page bulletin makes available material on fire safety for use by the schools of the state which might be found of value to all persons interested in fire safety. This guide contains a self-inspection blank for schools, home inspection blank for school children, the New York State law pertaining to fire drills and fire prevention education and similar material of interest to educators.

New Chief in Washington, D. C.

BATTALION Chief Clement Murphy, for seven years drillmaster of the District of Columbia Fire Department has succeeded to the post of chief engineer upon the retirement of Chief Stephen T. Porter. Chief Murphy, age 45, is the youngest chief in the history of the paid department. He was top man in civil service examinations for rank of sergeant, lieutenant and captain prior to his appointment as drillmaster.

"Smoky Joe," a creation of Art Espey's, has been arousing the interest of all who travel on Delaware County, Pa., bus and car lines. The Delaware County Firemen's Association has distributed these posters where the message can be seen by the greatest number of people as frequently as possible. Every two or three months the wording changes, but Smoky Joe remains to attract attention.

Smokey Joe says

YOU WON'T NEED ME IF

Every day you practice fire prevention
Don't overload electric circuits at any time·
·Put hot ashes in metal containers·

DELAWARE COUNTY FIREMEN'S ASS'N.

FIGHT FIRE BEFORE IT STARTS

"I got my INDIAN FIRE PUMP *and in no time at all I had the fire out"*

reports
A. G. PRESTON

A. G. PRESTON

HERE IS MR. PRESTON'S LETTER

D. B. Smith & Co., Utica, N. Y.

Today sitting at my desk, I glanced out and saw smoke coming from the hood of an auto parked in front of my building. I rushed out and a man and woman had gotten out of the car and raised the hood. A nice flame had developed.

I rushed back in my store and got one of your **INDIAN FIRE PUMPS** and in no time at all had the fire out before the fire department arrived.

I bought these **INDIAN FIRE PUMPS** three years ago and they have been standing filled with water but never used until today — they worked perfectly. The owners of the car were pleased and amazed to see what a fine job the **INDIAN FIRE PUMP** did.

Yours very truly,
A. G. PRESTON.

Patented

We strive to keep a watchful eye on the future and develop improvements in our INDIAN FIRE PUMPS that will make them continue to stand out all alone as the best fire pumps obtainable

Here's a time when someone beat the fire department to the punch. Every day brings new uses for these great fire fighters. How is **your** department fixed for **INDIAN FIRE PUMPS?** Have you plenty? Now is the time to order for spring and summer needs. Remember clear water alone does the job.

NOZZLE IS ADJUSTABLE

The No. 147 nozzle of an* INDIAN FIRE PUMP *is adjustable to throw 30 to 50 feet straight pressure stream, course spray or fog mist spray—whatever is necessary. Five gallon tank carries slung on the back like a pack basket leaving arms free.

SEND FOR CATALOG GIVING FULL DETAILS

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Pacific Coast Branches
Hercules Equipment & Rubber Co., 448 Brannan St., San Francisco, Cal.
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The Conwell Co., Klamath Falls, Oregon
Mill & Mine Supply, 2200 4th Ave., So., Seattle, Wash.

FIRE PUMPS HALE CONSHOHOCKEN PA

EXPERIENCE

Firefighters who have used HALE pumps have learned through first-hand experience to appreciate their flexible range of performance and high efficiency.

They know they can depend on HALE for the right volume and the right pressure to fit a wide range of tough fire-fighting conditions.

Flexibility and high efficiency are two of the reasons why more fire chiefs than ever before are specifying Hale Pumps on their new Fire Apparatus.

Write to-day for up-to-date information on Hale Fire Pumps . . . built in all standard capacities.

HALE
FIRE PUMP CO.
Conshohocken, Pa.

Fire Pumps in all Standard Capacities

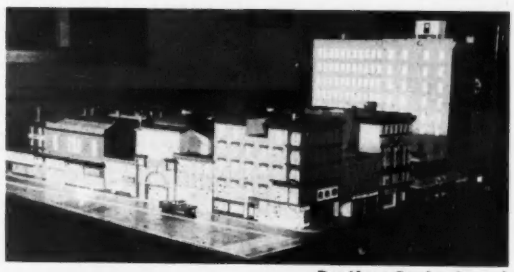
Providence Student Firemen Combat Theoretical Blazes

Story from the **Providence Sunday Journal**

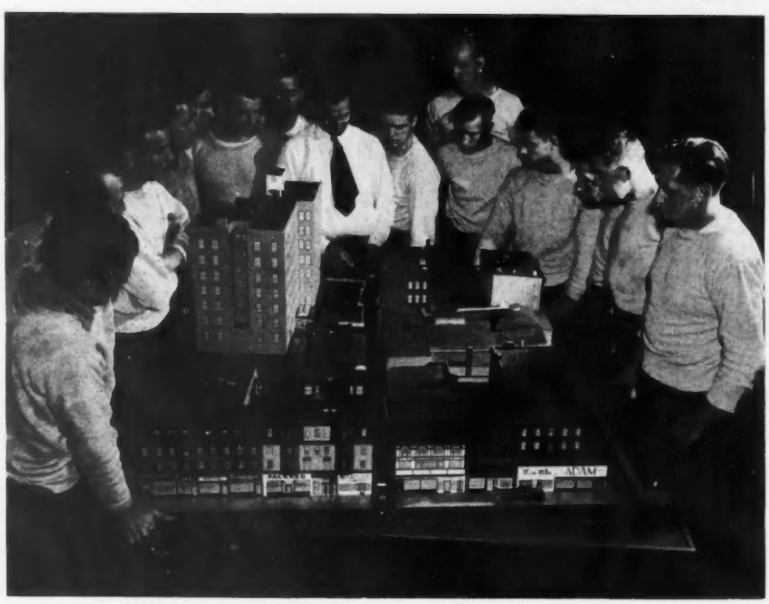
BOTH the Providence Fire Department and the National Board of Underwriters know a target area when they see one. Recognized danger-spot of downtown Providence, R. I., is a tightly built-up chunk of city bounded by Weybosset, Union, Westminster and Mathewson Streets and split midway by narrow, canyon-like Clemence Street or "Pie Alley." It is an area packed with big and little businesses, with high-thrusting modern office buildings and other structures so old that Capt. Eugene Hawkins of the fire department carpenter shop could find no record of them from which to work when he was modeling the area.

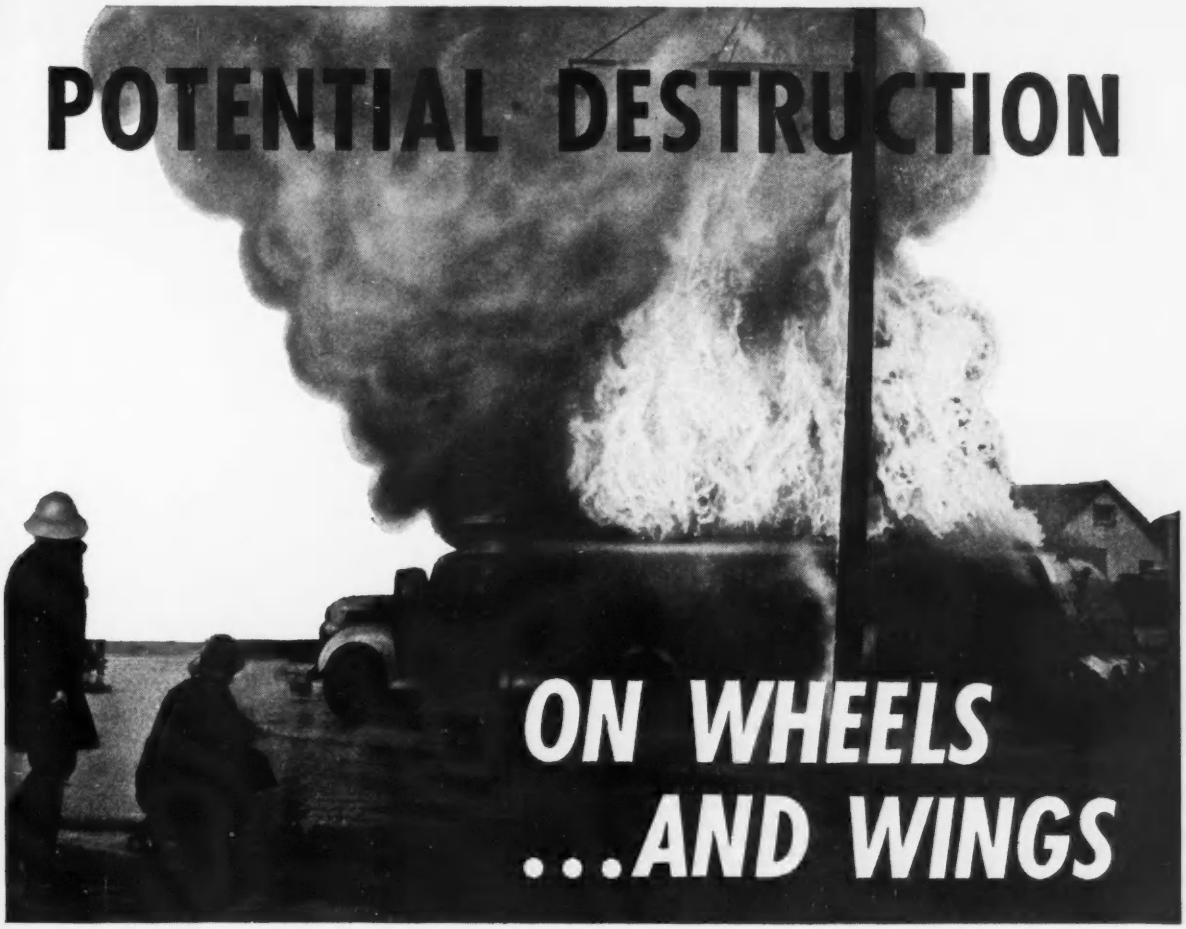
Built to a scale of five feet to the inch, the model of this area of a possible major conflagration occupies a large table on the third floor of the Division of Training. Its dimensions are 58 x 53 x 66 x 60 inches and it is perfect in detail. Every building is represented, every window, every skylight to which a master stream could be directed to fight a fire. Scores of photographs aided the builder, who first worked out his design from the plat book at City Hall and other assembled data.

Lectures on fire problems illustrated in the model are given by Battalion Chief Lewis A. Marshal, in charge of training, and the problems thrashed out at "bull sessions." How to surround a fire in a building which has only one of its sides accessible to frontal attack, what length ladder to use there, the "life problem" presented by a loftful of sleeping Chinamen and how to get them out if need arises, whether to go into action with a master stream from the street level or an adjoining roof top — all these matters and many others get talked over and argued about by men committed to the defense of life and property in the never-ending war against an insidious foe.



Providence Sunday Journal





SPARK, cause undetermined, touched off this fire as the 3,700 gallon transport was being unloaded.

How would your community handle a hot one like this? Or tackle a sizzling crash fire at the local airport? Burning gasoline is sprayed far and wide igniting most everything it contacts. An extremely dangerous fire to fight!

The war technique of taming airplane crash fires presents the practical solution that requires no special training to execute.

A fog nozzle, water and MEARLFOAM-5, the blended, multi-protein foam liquid, make FOGFOAM that covers wide areas instantly.

* MEARLFOAM 5

Completely safe and non-corrosive—may be used with standard Mechanical Foam-Forming Equipment

Fogfoam speeds up rescue operations in crash fires involving airplanes, gasoline transports, automobiles, marine tankers...shields fire-fighters from the heat—cools and extinguishes *simultaneously.*

Fog nozzles are now available and every community should prepare itself—with MEARLFOAM-5—for quick extinguishment of gasoline and oil fires...with fullest protection to fire-fighting personnel

• • •

TECHNICAL ASSISTANCE AVAILABLE
Bulletin on Request

** MEARLFOAM-5, in pre-mixed solutions with hard or sea water, will not form any objectionable precipitate on long standing.

FOAM ON FIRE OUT... Stays OUT!

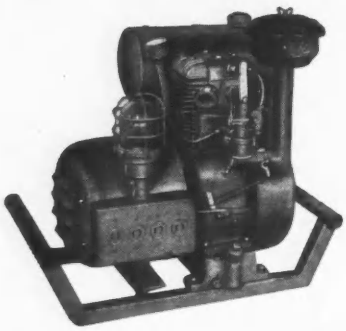
THE MEARL CORPORATION
153 Waverly Place, New York 14, N.Y.

*TRADE MARK

SEND for CATALOG VF

Special light-weight dry cell Searchlight. Requires no attention. Always ready for use. Two filament bulb. Sure-grip soft rubber handle.

THE PORTABLE LIGHT CO., INC.
216 WILLIAM ST., NEW YORK 7, N. Y.



"U.S." ELECTRIC PLANTS

These rugged 1,500 watt units were designed to fire department specifications — built to meet every need. Dependable, quick-starting, 4-cycle engine. Positive lubrication. Automatic voltage regulation. No fussing to mix gasoline and oil. Compact — an easy load for two men.

Larger and smaller sizes are also available
Write for information

UNITED STATES MOTORS CORP.
424 NEBRASKA ST. OSHKOSH, WIS.

Country Home Destroyed in Colorado

Reported by Chief T. P. Treadwell
Fort Collins Fire Department
(Member NFPA Committee on Firemen's Training)

THE owner thought that a stone-walled structure couldn't burn, but fire wrecked the sixteen-room country home as it was nearing completion. There was no insurance and the loss stood at $75,000. As the structure was located in a rural area, it was being built without any fire prevention or inspection supervision.

The building was 127 feet in length and 82 feet at its widest point. The wiring of the building was B-X in masonry walls. The interior was of wood studding with wood lath, wooden roof built up with rolled tar paper and mopped with five or six layers of hot tar. The attic space was not fire-stopped but had a ventilating system. Wind-propelled ventilators had no fire dampers of any kind.

The plasterer had just finished the southeast rooms. All the kitchen cabinets, all the finished lumber for inside, plumbing fixtures, building hardware, finish trim lumber of oak, a power planer, sander, saws, and jointer were in the building.

The furnace was equipped to burn oil but was installed by inexperienced mechanics. There was no control valve on the supply line, only at the furnace. Forty-one feet from the building was a 10,000-gallon fuel tank with a 400-gallon auxiliary tank. This tank was under a pressure of from 4 to 6 pounds. There was a ¼ H.P. motor driving the pressure pump with no shut-off other than the pressure regulating device.

Fire started when a workman set the rheostat on the boiler to warm the house. The boiler was attached to hot water pipes imbedded in the concrete floors to serve as radiators. The fire was discovered by a plumber, and workmen tried to put it out with extinguishers from another building, before telephoning to the Fort Collins Fire Department which provided paid rural protection.

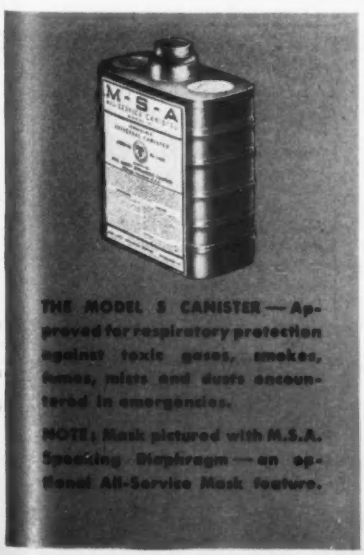
When the fire was discovered, oil was burning on the concrete in front of the furnace and fire was going up an unplastered wood lath partition to the attic space. In order to stop the flow of oil, it was necessary to cut the supply lines in the yard.

Rural Engine No. 5 responded on the alarm with a 250-gallon booster tank equipped with fog nozzles and manned by two men. Upon arrival they called for another engine by radio. Engine No. 6 was dispatched to the fire. The chief of the department also responded on the radio call. When he arrived, oil was burning on the concrete floor covering an area of 25 to 30 feet. The entire building was involved with fire and the 6,000-gallon cistern contained less than 500 gallons of water. This, with the booster tanks on the two pieces of equipment, was not sufficient to check the fire.

The fire plainly shows that inspection supervision is needed for construction in rural communities as well as for city properties. Had this oil-burning furnace been installed to conform with requirements of the N.F.P.A. suggested Oil Burner Ordinance, had the building construction taken into account the hazard of the large unprotected attic space, had a full fire cistern of at least a 3,000-gallon capacity been available, the fire department could have controlled the fire if given a prompt call.

MODEL S *All-Service* GAS MASK

U. S. BUREAU OF MINES APPROVED



THE MODEL S CANISTER — Approved for respiratory protection against toxic gases, smokes, fumes, mists and dusts encountered in emergencies.

NOTE: Mask pictured with M.S.A. Speaking Diaphragm — an optional All-Service Mask feature.

The trained fireman knows the value of modern gas mask protection—and the experienced fireman knows the outstanding quality of the M.S.A. ALL-SERVICE Gas Mask! Maintaining top standards of value and performance, this famous Mask provides *approved protection* against all smokes and gases (including carbon monoxide) under any conditions where a canister mask can be used; easy wearing comfort, well-balanced fit, wide-angled vision, speed of application . . . all the service advantages of a real firefighting safety appliance, designed and built to do a better job. *Let us arrange a demonstration for you.*

MINE SAFETY APPLIANCES CO.

BRADDOCK, THOMAS AND MEADE STREETS

PITTSBURGH 8, PA.

CAIRNS

"FLINT-FLEX" HELMETS

Another CAIRNS advance along safety lines — a plastic helmet combining the upmost in strength, protection and comfort, with the minimum of weight; one-piece construction with embossed reinforcing ribs; insulates against heat and electricity; highly resistant to crushing or fracture; moderate in price; PROMPT DELIVERIES. . . . Write for Catalog 32S.

CAIRNS & BROTHER
Outfitters to Firemen Since 1886
444 LAFAYETTE STREET, NEW YORK 3

StrangleAIR FOAM
FAST • SAFE • CLEAN

Subdues oil or gasoline fires in a matter of seconds. Prevents flashbacks. Blankets blaze and shuts off access to air. Clings to any surface, horizontal or vertical. StrangleAIR does not deteriorate. Good until used.

FIRE-SNUFFER NOZZLES

Simple, effective, easy to handle or clean. Deliver foam of uniform consistency.

Available through fire appliance supply houses.

Write for Illustrated Bulletin 25.

StrangleAIR FOAM

AMERICAN DIE & TOOL CO., INC.
EAST READING, PA.

Radio in the Fire Service

Continued from page 13

Let us suppose that the various volunteer fire companies in a township or borough have radio communication with each piece of apparatus. The nearest volunteer company rolls in with one or more trucks, as the case may be, and sizes up the situation. The fire is outside an area covered by hydrant service and the job is one that calls for considerable tank capacity to hold the blaze in check and protect exposures while a pumper relay is set up from a distant water source. Various fire companies in the township or borough are contacted through a radio station at police headquarters or in the municipal building. Water tank units are dispatched as required and pumpers are assigned their proper place in the relay while still en route. When the relay is set up, each pumper, perhaps 1,000 feet apart, is advised whether their operating pressure is satisfactory or whether the pressure should be raised or lowered. Any other signals that may be needed are transmitted. If the relay is supplying a water tank unit that already has lines on the fire, the pump operators can be notified if the supply is exceeding the demands of the hose streams. The days when each local volunteer fire company had to fight a fire of three-alarm proportions alone will be a thing of the past when all units are under radio control. Even in farming areas, the rural fire companies will be able to mobilize a number of units at any fire, with others designated to cover communities from which apparatus has responded.

ANOTHER type of fire at which radio will be particularly invaluable will be large area fire, whether that happens to be a blaze sweeping through woodland and suburban communities, or a big city conflagration. At present, under such conditions, the fire chief has all too little control over the entire operation and in many cases does not know the actual extent of the blaze at all points. A number of forward-looking departments are already using airplane observers equipped with radio to coordinate fire fighting operations at these major fires. With each fire truck radio-controlled it will be a relatively simple matter to coordinate all fire fighting operations, regardless of the rapid spread of flame or sudden shifts of wind.

Ultimately, when the use of the helicopter is further developed, that conveyance should provide a most desirable form of command car for the field officer in charge of a major fire. Equipped with radio, the chief, operating from a helicopter, will be able to coordinate the operation of his various units both from the ground level, and from higher elevations where the entire operation may be viewed at a glance. He will be able to drop down at any point where his presence is required. Those who laugh at such ideas now would have laughed at the modern aerial ladder in the days of leather hose. The advantages of radio-controlled helicopters, already proven in the Coast Guard rescue operations and anti-submarine patrols, will play an important part in large area fire fighting operations. The U. S. Forest Service is known to be giving the matter serious consideration. It remains to be seen which public fire department will be the first to use this equipment.

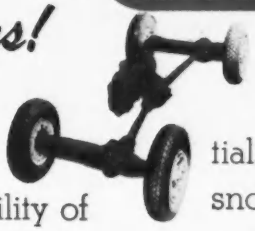
Returning to the subject of radio on regular fire trucks, there are many other advantages that will be outlined in further studies of the subject. Meanwhile, a number of fire departments, paid and volunteer, are advancing plans for radio control of all their fire units. If a community is not large enough to have a separate wave length for its fire department it is possible for a group of fire departments to obtain an allocation. In small communities the fire service radio may operate through the police radio station, although this is not desirable in larger towns and cities where both police and fire services have a fairly large number of mobile units on the air.

HAPPY EASTER!
When you buy Easter seals you share your Easter joy by giving crippled tots medical care, bedside teaching, wheel chairs, crutches, training for a job . . . a useful life . . . a chance to be "like other kids."
Buy EASTER SEALS
The National Society for Crippled Children and Adults, Inc., Chicago, Ill.

FWD .. *Engineered* to give you the finest Fire Protection Service

FOUR-WHEEL-DRIVE

A "Plus" that Pays in Many Ways!



The unfailing dependability of FWD Fire apparatus is well known and valued by fire fighters. Superior speed, power, traction and safety are FWD-engineered advantages resulting from the true FWD four-wheel drive principle at its highest development, with center differential. Steep or slippery grades, mud or snow-blocked roads, are no handicaps for FWDs. Driving power and traction in all wheels is the answer . . . and the reason why cities from coast to coast value the "plus" performance of FWD Fire Apparatus.

THE FOUR WHEEL DRIVE AUTO CO.
Clintonville, Wisconsin
Canadian Factory: Kitchener, Ontario

For 36 years, owners have said: "FWD — the BEST truck built!"

FWD

FOUR-WHEEL-DRIVE *Fire Apparatus*
GETS TO FIRES FASTER AND SAFER!

WHEN SECONDS COUNT
BE READY
WITH THE

EMERSON RESUSCITATOR

It is the simplest automatic breathing machine to operate yet developed and therefore the quickest to place in operation on a patient. This simplicity of design and ruggedness of construction account for its leadership in fire departments everywhere!

•

Let us send literature or arrange a demonstration at your headquarters

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J. H. EMERSON CO.
24 Cottage Park Ave.,
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Representatives in Principal Cities

National Fire Protection Association, International

Associate Membership

VOLUNTEER FIRE COMPANY SECTION ($10 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive at their headquarters, one copy of all publications sent to NFPA associate members.

ASSOCIATE MEMBERSHIP ($10 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly,** the monthly

New members: Volunteer Fire Company Section—

Morrilton Fire Dept., Morrilton, Ark.
Palatine Fire Dept., Palatine, Ill.
Hillside Vol. Fire Dept., Hillside, Md.
Lexington Park Vo. Fire Dept., Inc., Lexington Park, Md.
Westwood Fire Dept., Westwood, Mass.
New Providence Fire Dept., Hose Co. No. 1, New Providence, N. J.
Oxford Vol. Fire Co., Oxford, N. J.
Bowmansville Vol. Fire Assn., Bowmansville, N. Y.
Estates Hose Co. of the New Hyde Park Fire Dept., New Hyde Park, L. I., N. Y.
Hillcrest Fire Co., Spring Valley, N. Y.
Middleburgh Heights Vol. Fire Dept., Berea, Ohio
West Taylor Vol Fire Co., Johnstown, Pa.
Sellersville Fire Co., Sellersville, Pa.

CANADA

Islington Fire Dept., Islington, Ont.
North Hatley Vol. Fire Dept., North Hatley, Que.

Fire on the Ohio River

Continued from page 15

of barges and it was doubtful whether even the landing barge, including the office, could be salvaged. An additional hazard was the burning of the big ropes which bound the fleet unit together, as there was danger that the entire group might have begun drifting around. However, barge line employees replaced the ropes as quickly as possible with other lines. The lines of rope stretched over the decks of barges and the openings between made a risky task for fire fighters in the darkness.

Had a towboat been tied up with the barges, as is customary when in port, with only a skeleton crew the situation would have been much more interesting. It has been suggested that the towboat might have been cut loose from the fire area with another fully manned boat assigned to chase after them and tow them to safety.

The volunteer firemen on Neville Island have had a great deal of experience with a very wide range of industrial fires, including fuel oil and gasoline, but this was their first experience with fire spreading on the surface of the river and gave them an interesting battle. One fireman received a burned hand, another was struck by a nozzle when a length of hose burst and some were affected by the smoke. The loss has been estimated at approximately $105,000. A considerable portion of this loss was due to storage of surplus Navy ship-to-shore radios on one of the vessels.

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"Look here—I've left plenty of space for a hose."

Oregon Fire Chief's Conference Includes Plans for Tournament

THE Oregon Fire Chiefs' Association plans to hold its annual conference and fire school at Seaside, May 13–15. An interesting program is planned for the full three days with the afternoon of the fourteenth given over to a competitive hose evolution as outlined below.

Competitive Hose Evolution

Part One: Make Lay of 150 Feet, 2½-Inch Hose

At starting signal team members (three to each team), will advance from positions at starting line and mount rear footboard of apparatus. 150 feet of 2½-inch hose is laid from hydrant to platform, nozzle attached and when all team members are in proper positions at nozzle, nozzle is opened and target is knocked down. Without stopping, proceed into —

Part Two: Replace Center Section of Line

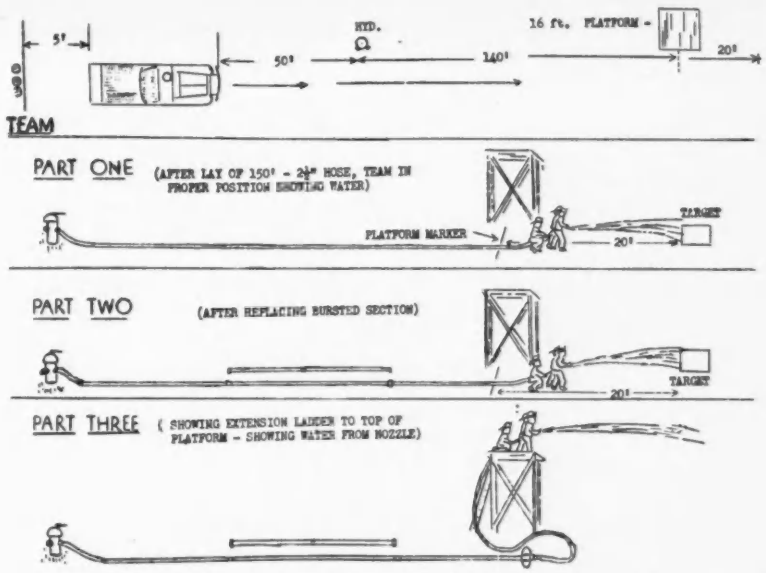
As soon as water is shown in Part One, line is shut down at hydrant or by hose clamp and the center section replaced with another section of hose. No restrictions are imposed as to methods followed in making this replacement except that replacement length of hose must be obtained from apparatus during this portion of the contest. With line reconnected and team members in proper position at nozzle, knock down target.

Part Three: Extension of Line to Top of 16-Foot Platform

As soon as water is shown in Part Two, line is shut off and 50 feet of 1½-inch hose connected to the end which is extended to the top of the platform over small extension ladder. This ladder must be obtained from the apparatus, raised and placed in position during this portion of the contest; also the length of 1½-inch hose. With the line extended to the top of the platform and all team members in proper position at the nozzle, water is shown. This completes the contest and time is called.

Contest Rules

1. All teams shall be composed of three men, each of whom must be a regular member of the fire department the team is representing. One member of each team shall be designated as team captain
2. All equipment including apparatus and driver will be furnished by the Seaside Fire Department. Teams may furnish their own hose clamps, hydrant spanners, and/or nozzles, if desired.
3. Speed of apparatus will not exceed 15 miles per hour but may be less if desired.
4. Each part of the contest must be properly executed and completed before the next part may be started. Failure to comply with this rule will result in disqualification.



This evolution actually consists of three parts, but the entire evolution is to be run off without stopping at the end of each three parts.

5. Before showing water at the nozzle in Parts One and Two, nozzle must be located well past platform marker with two men holding it and the third heeling the line not more than four feet behind. In Part Three the nozzle must be held in a like manner with all three men on top of the platform. (Including their feet.)
6. Time will begin when starting signal is given and will end when water is shown at the nozzle in Part Three of the contest.
7. All connections must be hand tight and the hydrant must be fully opened.

FIREMEN'S Rubber and Canvas CLOTHING FROM Midwestern

This Midwestern Combination Suit, made of Vanitex, the modern waterproof fabric, is sold separately or together. The "Mackinaw Coat" is a highly serviceable garment with flexible elastic inner sleeves; adjustable collar strap, detachable wool lining, Midwestern safety snaps, two outside pockets, 6" storm flap and many other good features.

Hundreds in use All over America

Midwestern Bunker Pants with detachable wood lining, safety snap on adjustable belt, wide protecting flap, are sturdily constructed with reinforced crotch for pole sliding. Write today.

Regular Firemen's Boots available ¾ length. See your local Midwestern distributor for price and literature, or write the factory.

Manufactured by

MIDWESTERN MANUFACTURING CO.

MACKINAW, ILLINOIS

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Oscillating Red Light; Single or Double Tone; Coaster Model

The tremendously powerful tone of Federal Traffik-King sirens demands attention over other traffic noises, clears the way. This model has a distinctive double tone; and it coasts almost two minutes after current is off. Special clutch mechanism releases rotor; coasts much longer than so-called "long roll" types, which seldom roll over 30 seconds. Electric solenoid brake on rotor stops sound instantly. Durably built for long, dependable, maintenance-free service.

Rotors: cast aluminum, precision-machined, individually balanced. Thin, smooth blades for high efficiency.

Ports in rotor and stator accurately spaced, finished to square sharp edge; assure true pitch, powerful tone.

Motors: heavy duty; bronze or ball bearing; 6 or 12 volts.

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MANUFACTURERS' ANNOUNCEMENTS

M. S. A. Demand-Type Oxygen Mask

Mine Safety Appliances Company announces the production of a new Demand-Type Oxygen Mask for respiratory protection in unbreathable atmospheres. The Mask is a cylinder-type oxygen breathing apparatus which should be of special interest to fire departments, and throughout industry, in any situation involving unbreathable atmospheres.

M.S.A. Demand-Type Oxygen Masks are of two types. One type has an oxygen cylinder on the wearer's back supported by an adjustable harness. Enough oxygen is supplied for approximately one hour of normal breathing. Also available is a front sling model with smaller cylinder for shorter periods. Both models provide oxygen exactly as needed by the individual wearer. This control is made possible by the demand regulator with which the mask is equipped — the same regulator supplied by this company to the armed forces for altitude flying.

The M.S.A. Demand-Type Oxygen Mask is equipped with a pressure gauge which indicates the amount of oxygen in the cylinder at all times. The breathing tube is quickly disconnectable for conservation of oxygen during stand-by periods. Fogging of the Mask's All-Vision Facepiece is prevented by a flow of cool oxygen over the lenses.

For a detailed bulletin describing this new M.S.A. Demand-Type Oxygen Mask or for a demonstration by a local representative write to Mine Safety Appliances Company, Braddock, Thomas and Meade Streets, Pittsburgh 8, Pa.

Personals

Frederick W. Beardslee, widely known in fire department circles as manager of the Fire Apparatus Division of the Mack Manufacturing Corp. has recently been promoted to the position of Vice-president of the corporation. He will continue in charge of the motor fire apparatus division. Mr. Beardslee has been with the Mack organization since 1919.

Announcement has been made of the appointment of Albert A. Frank as Vice-President of Great American Industries, Inc., and General Manager of Ward LaFrance Truck Division, Elmira, N. Y. A. Ward La France, founder of the company has retired from active management of the division. He will remain, however, as Vice-President of Great American Industries, Inc., and a member of the Board of Directors. Mr. Frank started his career in the automotive industry in 1921 when he joined the Rickenbacker Motor Company. Subsequently he was affiliated with the Chrysler Corp., joining Ward LaFrance in 1943 as Sales Manager.

The General Detroit Corp. of Detroit, Mich., has announced the resignation of F. Dale Bacon, for the past several years General Manager of its Fire Extinguisher Division. Mr. Bacon has assumed the presidency of the Floodbeam Flashlight Co., the Wetstart Mfg. Co., and Bal Dart, Inc.

After 36 years in all ranks of the Lorain (Ohio) Fire Department, Chief John J. O'Doherty has retired to engage in fire engineering service and the sale of fire protection equipment. He has announced the establishment of his own business which is known as John J. O'Doherty Company, Inc., and offers a wide range of fire fighting equipment and fire department supplies. The company has its headquarters at 307 Broadway Bldg., Lorain, Ohio.

The Federal Electric Co., Inc., of Chicago, leading manufacturer of fire sirens and allied equipment, has announced the death on January 3, 1946 of its President Charles Borland. Mr. Borland, a native of Toronto, became associated with Federal Electric in 1926 as General Manager.

YOU GET EVERYTHING
WITH FMC HIGH-PRESSURE FOG FIRE FIGHTERS

The FMC Fog Fire Fighter is a *complete* high-pressure fire fighting unit. It gives you everything you need to knock down fires—*fast.*

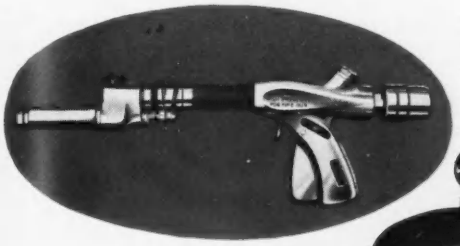
You get the famous FMC High-Pressure Pump—built by Bean and powered by the FMC never-fail Pump Drive. You get the FMC Fog Fire Gun and real High-Pressure Hose—designed for extra-heavy duty and tested by us at pressures of 1,050 pounds and better. Also the patented FMC Hose Couplings!

In addition—you get the assistance of a new and revolutionary fire fighting technique and our fire school training.

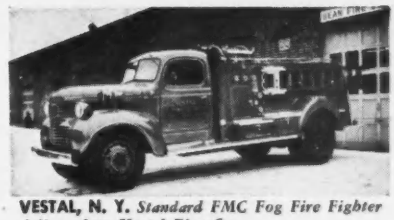
You Get the Complete Setup!

Insist on the *genuine* FMC Fog Fire Fighter. This is the *complete* high-pressure unit which has proved its worth at thousands of town, rural and airport fires. Firemen say it is one of the greatest contributions ever made to fire fighting.

WRITE—TODAY—FOR COMPLETE INFORMATION



NEW FMC FOG FIRE GUN—patented by Bean—is tested regularly at 1,000 pounds pressure. Provides every type of fog pattern—everything you need for high-pressure work. One man can handle—easily.



VESTAL, N. Y. *Standard FMC Fog Fire Fighter delivered to Vestal Fire Co.*

WILLISTON, OHIO. *Standard FMC Fog Fire Fighter delivered to Allen Township Fire Dept.*

ROCK FALLS, ILL. *Standard FMC Fog Fire Fighter delivered to Rock Falls Fire Dept.*

WILTON, WIS. *Standard FMC Fog Fire Fighter delivered to Wilton Community Fire Dept.*

BRIGHTON, MICH. *Standard FMC Fog Fire Fighter delivered to Brighton Fire Dept. Complete in every respect, this unit carries its own water supply and provides two guns of 30 gallons each at 600 lbs. or more nozzle pressure.*

FMC *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

JOHN BEAN MFG. CO., 726 HAZEL ST., LANSING 4, MICH. • BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

A 52 FOOT LIFT IS EASY!

with the DERBYSHIRE ACCEL-O-RATE JET PUMP BOOSTER

The ACCEL-O-RATE would have done just as good a job had the bridge been 100 feet above the river. (There are very few cases where a 100 foot lift is ever required.)

Even if you haven't bridges in your area, you need the ACCEL-O-RATE to reach creeks, wells, reservoirs, etc., which are as much as 200 to 300 feet beyond the reach of your pumper because of natural obstacles, mud, inclines, and the like. Now, these inaccessible water supplies are practically in your hip pocket — ready to use just by running lines from your pumper to your ACCEL-O-RATE Jet Pump Booster in the water source. Just prime the line from your booster tank, then cut in your pumper, and you've got plenty of water on the fire.

Now with a Derbyshire ACCEL-O-RATE on your pumper, you can feel secure about those sure-fire casualties that you've had your fingers crossed about for so long. Don't delay — put your order in today for a Derbyshire ACCEL-O-RATE!

Why has the Navy used thousands of similar Jet Pump Boosters? Because they're simple and trouble-free — always ready for immediate action.

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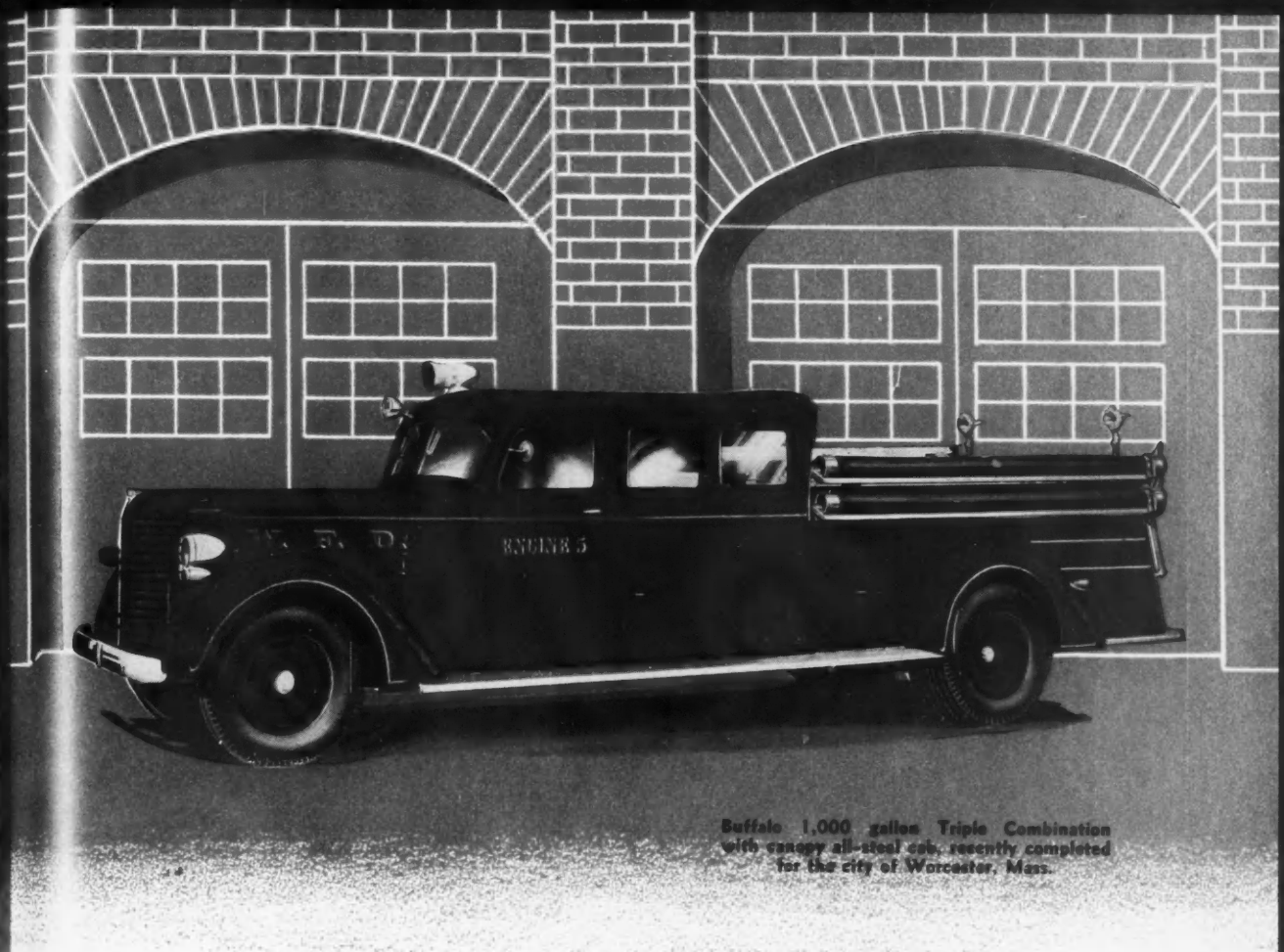
The ACCEL-O-RATE is simple and fast to hook up, gives you plenty of water for the fire.

NO MOVING PARTS!
NOTHING TO WEAR OUT!
WEIGHS ONLY 18 POUNDS!
NOTHING TO GET OUT OF ORDER!

WHY NOT BE SAFE—NOT SORRY?

Get all the facts — the ACCEL-O-RATE Jet Pump Booster puts heretofore inaccessible water supplies at your command. Complete details and low prices are yours for the asking. If your dealer isn't already handling the ACCEL-O-RATE, have him write us, too.



Buffalo 1,000 gallon Triple Combination with canopy all-steel cab, recently completed for the city of Worcester, Mass.

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MOTOR FIRE APPARATUS

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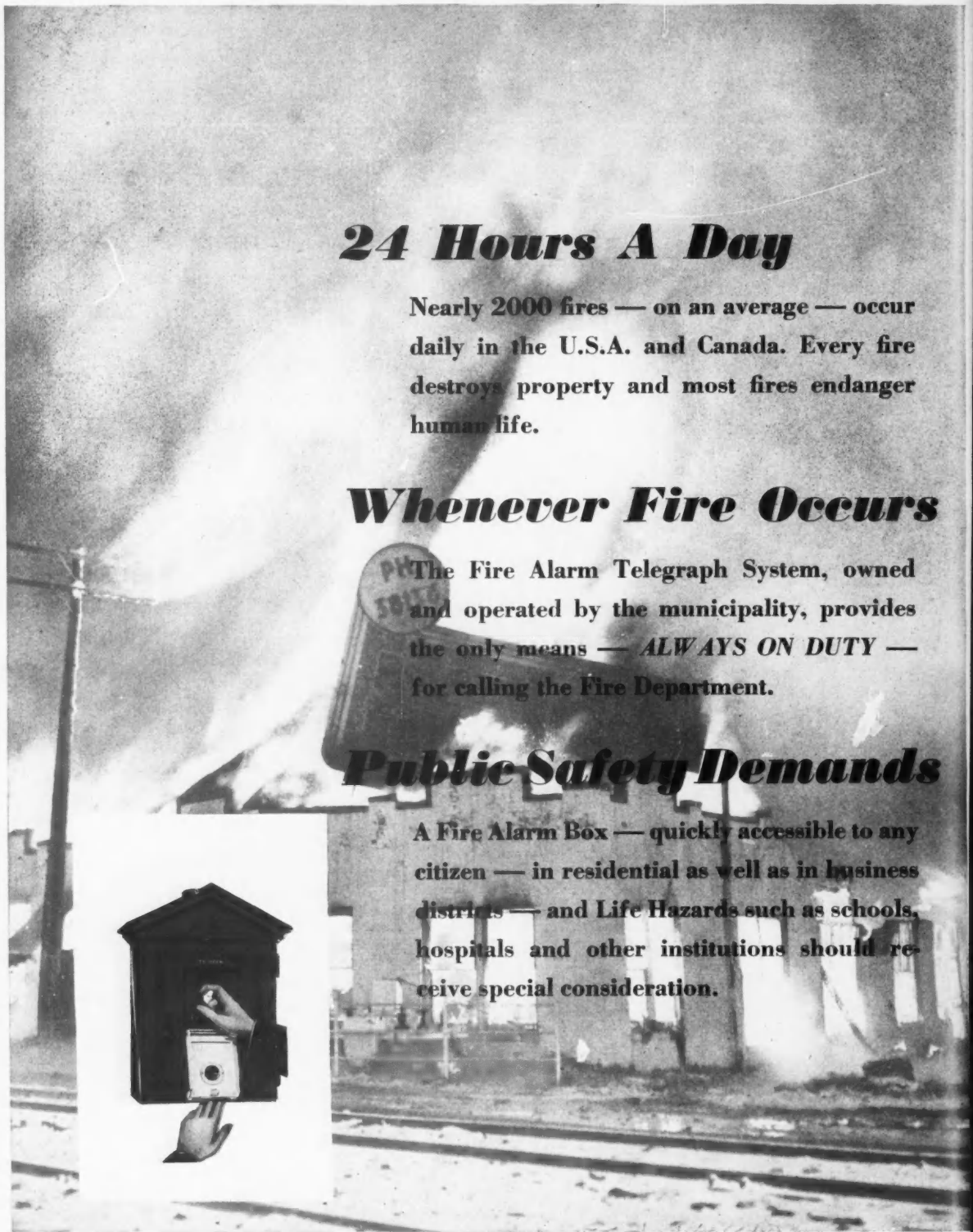
24 Hours A Day
Nearly 2000 fires — on an average — occur daily in the U.S.A. and Canada. Every fire destroys property and most fires endanger human life.
Whenever Fire Occurs
The Fire Alarm Telegraph System, owned and operated by the municipality, provides the only means — ALWAYS ON DUTY — for calling the Fire Department.
Public Safety Demands
A Fire Alarm Box — quickly accessible to any citizen — in residential as well as in business districts — and Life Hazards such as schools, hospitals and other institutions should receive special consideration.

Write for pamphlet — "The Fire Alarm Factor"

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